aprilia

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use+maintenancebook

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SAFETY WARNINGS

The symbols and warnings used throughout this manual have the following meanings:

Safety warning. This symbol attached to the vehicle or in the manual indicates a potential risk of personal injury. Non-compliance with the indications given in the messages preceded by this symbol may result in grave risks for your and other people's safety and for the vehicle!

⚠ WARNING

Indicates a potential hazard which may result in serious injury or even death.

⚠ CAUTION

Indicates a potential hazard which may result in minor personal injury or damage to the vehicle.

NOTE The word "NOTE" in this manual identifies important information or instructions.

TECHNICAL INFORMATION

★ The operations preceded by this symbol must be repeated also on the opposite side of the vehicle.

Unless expressly indicated otherwise, reassembly is a reversal of the disassembly procedure.

The terms "right" and "left" are referred to the rider seated on the vehicle in the normal riding position.

WARNINGS - PRECAUTIONS - GENERAL ADVICE

Before starting the engine, read this manual thoroughly paying special attention to section "SAFE RIDING".

Your and other people's safety largely depends on your reflexes and agility, but there are other key factors, such as your knowledge of the vehicle's operation and condition, as well as of the basic rules of "SAFE RIDING". Becoming thoroughly familiar with vehicle is essential to mastering safe riding techniques in traffic.

NOTE Keep a stock of one bulb per type with the vehicle (see technical data).

NOTE This manual must be considered as an integral part of the vehicle and must always accompany it, also in the event the vehicle is resold.

aprilia has carried out this manual with the maximum attention, in order to supply the user with correct and updated information. However, since **aprilia** constantly improves the design of its products, there may be slight discrepancies between the characteristics of your vehicle and those described in this manual.

For any clarification concerning the information contained in this manual, do not hesitate to contact your **aprilia** Authorised Dealer.

For control and repair operations not expressly described in this publication, for the purchase of **aprilia** genuine spare parts, accessories and other products, as well as for specific advice, contact exclusively **aprilia** Authorised Dealers and Service Centres, which guarantee prompt and accurate assistance.

Thank you for choosing **aprilia**. We wish you a nice ride.

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NOTE Some countries have statutory emission and noise control regulations in place requiring that motor vehicles undergo periodical inspections.

Users in these countries must:
– contact an **aprilia** Authorised Dealer to have the non-homologated components replaced with others homologated for use in the country in question;
– have their vehicles inspected at the required intervals.

NOTE Soon after purchasing the vehicle, write down the identification data indicated on the SPARE PARTS IDENTIFICATION LABEL in the table here below. The label is on right upper tube of the frame, to be able to read it, remove the centre fairing, see page 52 (REMOVING THE RIDER SEAT), page 53 (REMOVING SIDE FAIRINGS)

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SPARE PARTS IDENTIFICATION									
YEAR	Y	1	2	3	4				
I.M.	A	B	C	D	E				
I	UK	A	P	SF	B	D	F	E	GR
NL	CH	DK	J	SGP	SLO	IL	ROK	MAL	RCH
HR	AUS	USA	BR	RSA	NZ	CDN			

These data indicate:
– YEAR = year of manufacture (Y, 1, 2, ...);
– I.M. = modification code (A, B, C, ...);
– COUNTRY CODES = homologation country (I, UK, A, ...).

and are to be supplied to the **aprilia** Authorised Dealer as reference data for the purchase of spare parts or specific accessories of the model you have acquired.

Market versions are identified by the following symbols throughout the manual:

OPT **optional**

VERSION:

- I **Italy**
- UK **United Kingdom**
- A **Austria**
- P **Portugal**
- SF **Finland**
- B **Belgium**
- D **Germany**
- F **France**
- E **Spain**
- GR **Greece**
- NL **Holland**
- CH **Switzerland**
- DK **Denmark**
- J **Japan**
- SGP **Singapore**
- SLO **Slovenia**
- IL **Israel**
- ROK **South Korea**
- MAL **Malaysia**
- RCH **Chile**
- HR **Croatia**
- AUS **Australia**
- USA **United States of America**
- BR **Brazil**
- RSA **South Africa**
- NZ **New Zealand**
- CDN **Canada**

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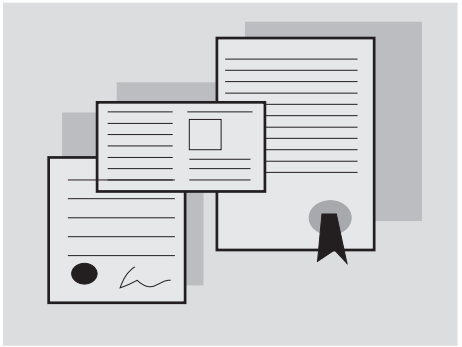
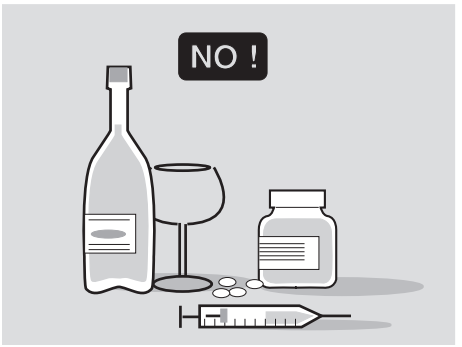
safe drive



BASIC SAFETY RULES

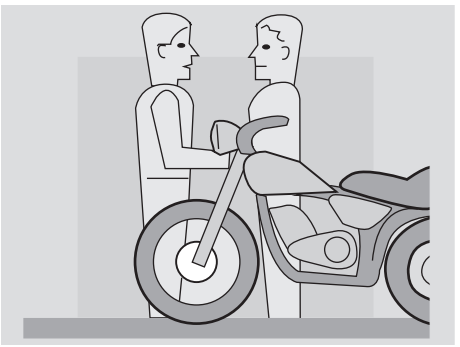
To drive the vehicle, you must satisfy certain legal requirements (driving licence, minimum age limit, psychophysical fitness, insurance, vehicle licence tax, vehicle registration, number plate, etc.).

Begin to familiarise yourself with the vehicle by riding in low traffic areas and/or private ground.



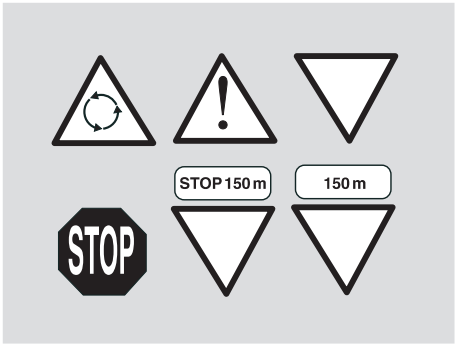
Certain prescribed medicines, alcohol, drugs and psychotropic substances will affect your riding, thereby increasing the risk of an accident.

Your riding is also affected by your physical and mental condition - do not ride if you are feeling ill, upset, tired or sleepy.



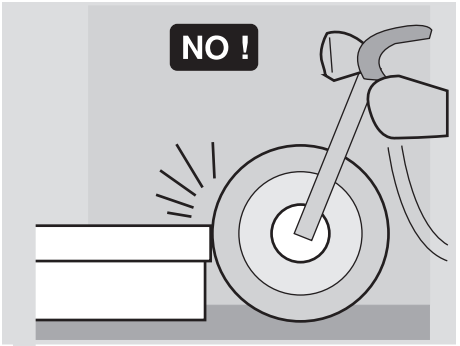
Most road accidents are caused by inexperienced riders.

NEVER lend your vehicle to a beginner and make sure any person borrowing your vehicle fills the legal requirements for driving.



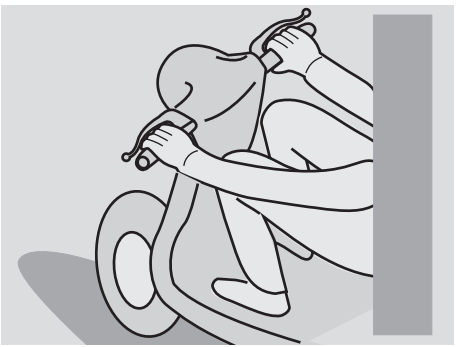
Strictly observe all posted signs and national and local road regulations.

Avoid any sudden or risky manoeuvres that may endanger your and other people's safety (for example: wheelies, speeding, etc.), and adjust your riding style to road surface conditions, visibility, etc.



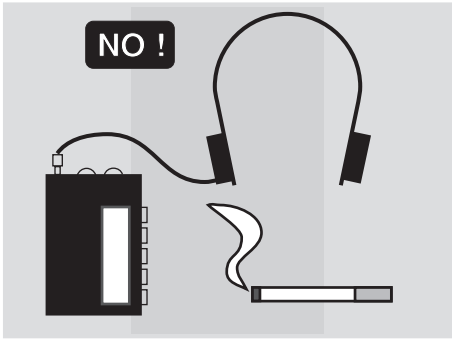
Avoid obstacles that could damage the vehicle or make you lose control of the vehicle.

Avoid riding in the slipstream of vehicles ahead in order to increase your speed.

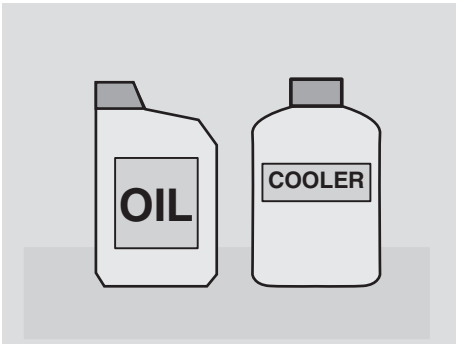


⚠ WARNING

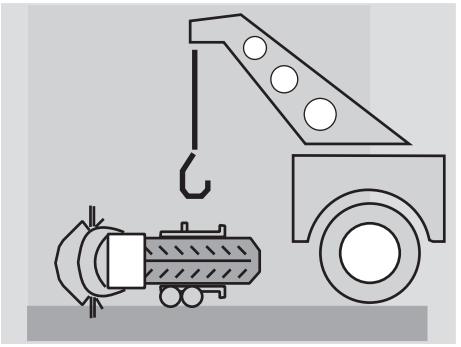
Always ride with both hands on the handlebars and both feet on the footrests (or on the rider's footboards), in the correct driving posture.
Avoid standing up or stretching your limbs while driving.



Do not allow yourself to become distracted by other persons or by smoking, eating, drinking, reading etc. when riding.



Use only the specified fuels and lubricants indicated in the "LUBRICANT CHART" and check oil, fuel and coolant levels at regular intervals.

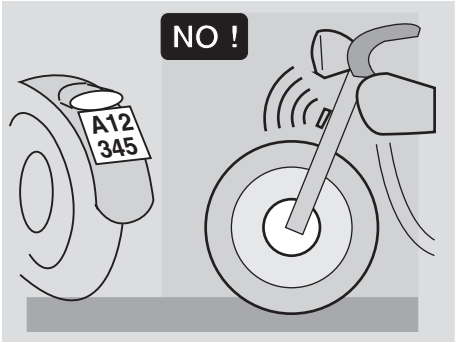


If the vehicle has been involved in an accident, check the control levers, pipes and hoses, wires, the braking system and key components for damage.

If necessary, have the vehicle inspected by an **aprilia** Authorised Dealer who should carefully check the frame, handlebars, suspensions, safety parts and all the devices that you cannot check by yourself.

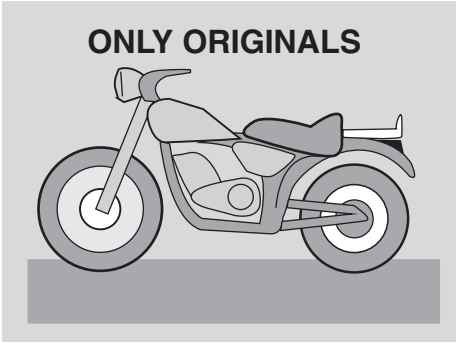
Remember to report any malfunction to the technicians and/or mechanics to facilitate their work.

Never use the vehicle when the amount of damage it has suffered makes it unsafe to ride.



Never change the position, inclination or colour of: number plate, turn indicators, lights and horns.

Any modification made to the vehicle will invalidate the warranty.



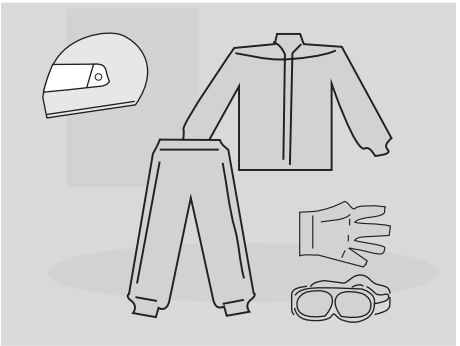
Making any modifications to the vehicle and/or removing the original components can adversely affect vehicle performance and safety or make it illegal to ride.

Observe applicable law and all national and local regulations concerning vehicle equipment.

In particular, avoid any modifications apt to enhance performance or alter the vehicle's original specifications.

Never race with other vehicles.

Do not ride off road.

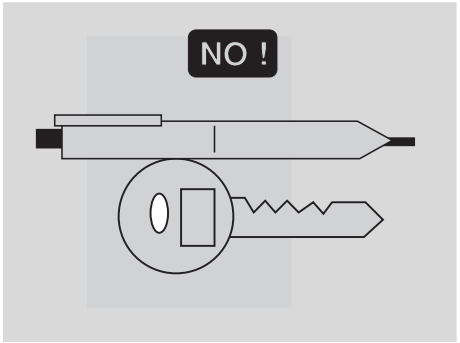


CLOTHING

Always wear and fasten your helmet correctly before moving off. Make sure your helmet complies with applicable regulations, is not damaged, is the right size and keep the visor clean.

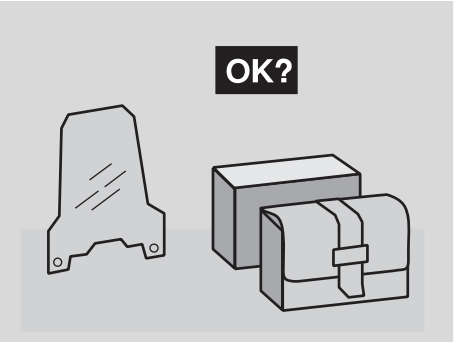
Wear protective clothing, preferably bright and/or reflective clothing. This will ensure you are easily seen by other road users and reduce the risk of an accident, besides affording improved protection in the event of a fall.

Wear tight-fitting clothing fastened at the wrists and ankles; make sure no strings, belts and ties are hanging loose; make sure no items of clothing or other objects can distract you or become entangled with moving parts or with the handlebars.



Do not ride with sharp or pointed objects in your pockets as they might cause injury in the event of a fall such as:

keys, pens, glass vials, etc. (note that the same applies to your passenger).



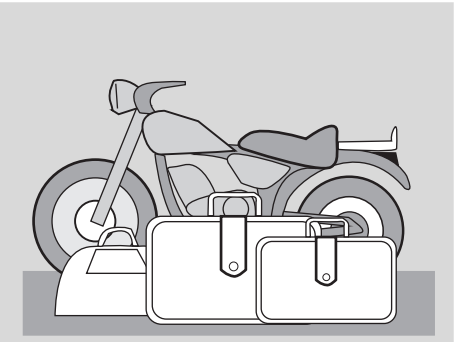
ACCESSORIES

The owner of the vehicle is responsible for the choice, installation and use of any accessory.

Any accessories installed must not cover the horns or lights or impair their operation, restrict suspension travel and steering angle, impair the operation of any vehicle controls or affect ground clearance or bank angle in a bend.

Avoid using accessories that may hamper access to vehicle controls, as this can slow down your reaction in an emergency.

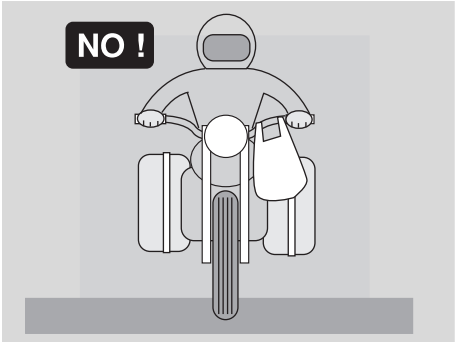
Large fairings and windshields may affect the vehicle's aerodynamics and make it unstable, especially at high speeds.



Make sure any accessories installed are fastened securely to the vehicle and will not affect safety during riding.

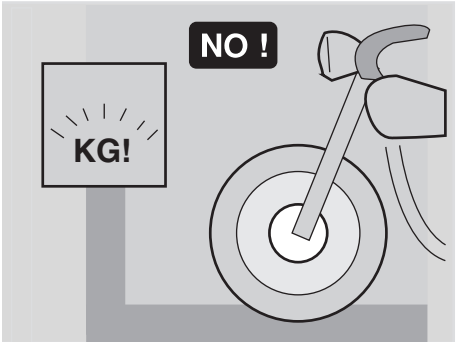
Do not install or modify any electric devices in such a manner as to exceed vehicle capacity, as this may lead to a power shortage or failure causing the engine to stop suddenly or rendering the horn and lights inoperative.

aprilia recommends the use of genuine accessories (**aprilia** genuine accessories).



Avoid hanging bulky, heavy and/or dangerous objects on the handlebars, mudguards and forks, because the vehicle might respond more slowly in turns and its manoeuvrability could be unavoidably impaired.

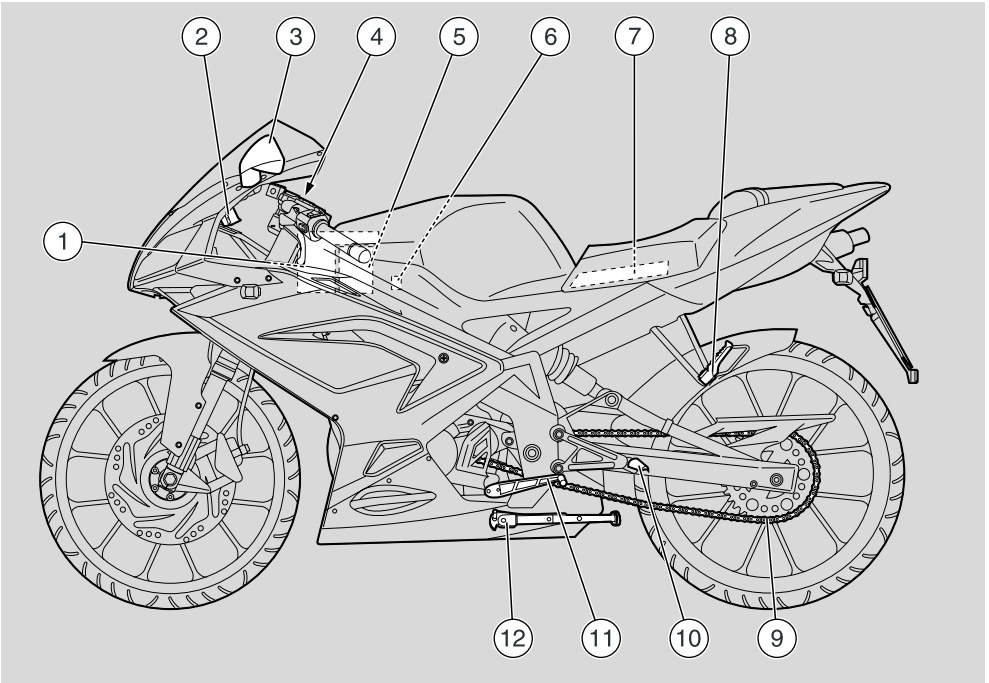
Do not secure bulky bags to the vehicle sides, as they could hit people or obstacles when riding, resulting in loss of control.



Do not exceed the maximum allowed load capacity.

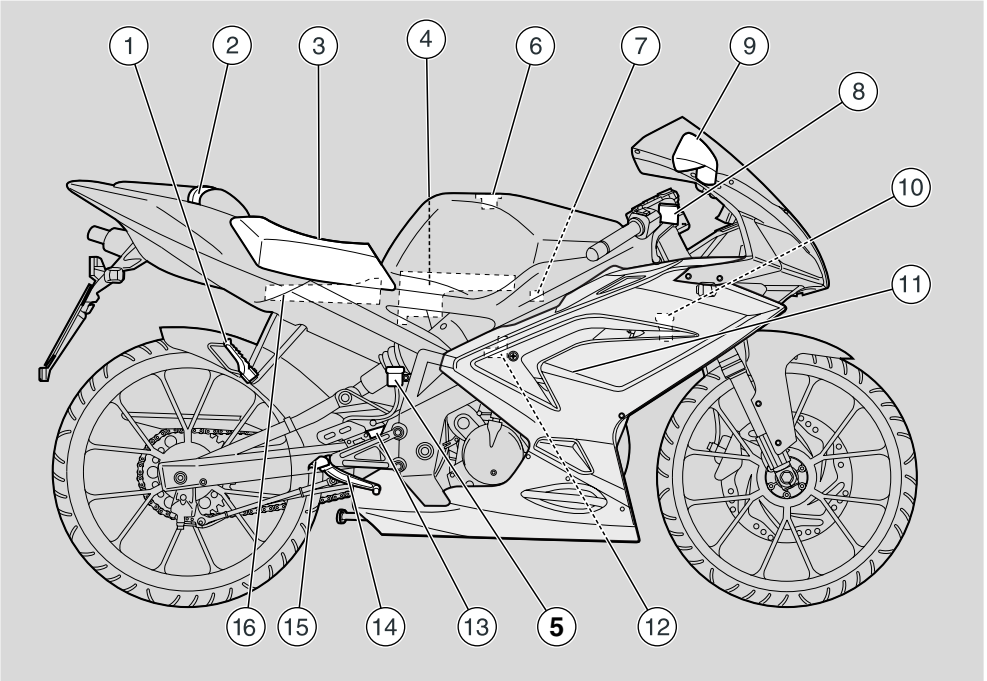
The overloaded vehicle will become unstable and handle poorly.

Use special care and drive at moderate speed if a vehicle is equipped with accessories that could alter its dynamic features.



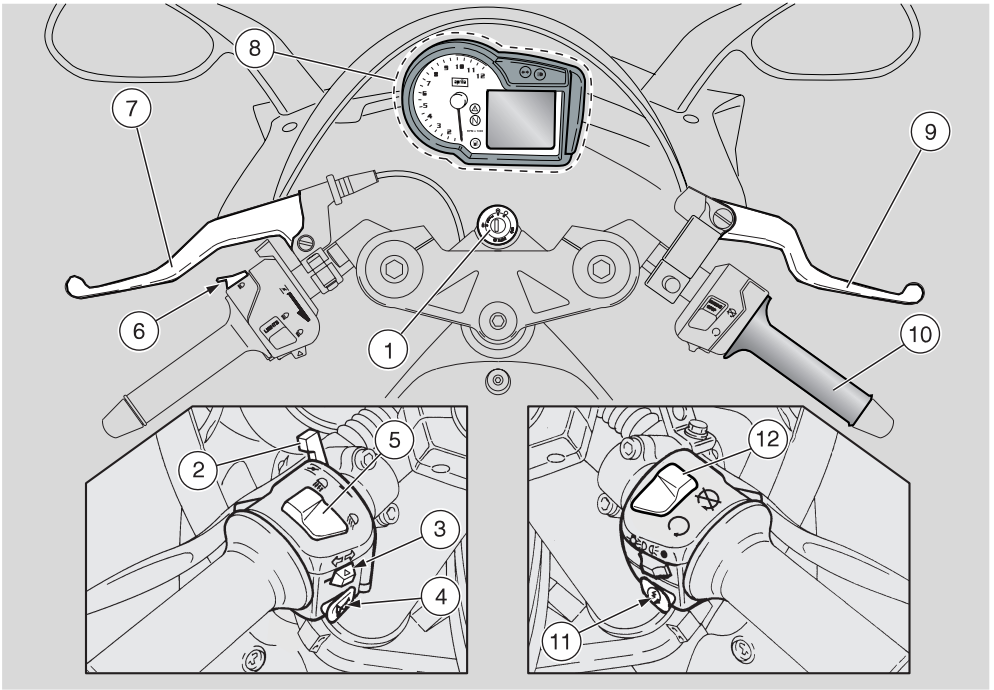
KEY

1) Coolant tank
2) Instrument panel
3) Left rear-view mirror
4) Ignition switch/steering lock
5) Battery
6) Coolant expansion tank cap
7) Glove/tool kit compartment
8) Passenger left footrest (snapping, closed/open) (in the countries where required)
9) Drive chain
10) Rider left footrest (with spring, always opened)
11) Gear change lever
12) Side stand (it goes up automatically)



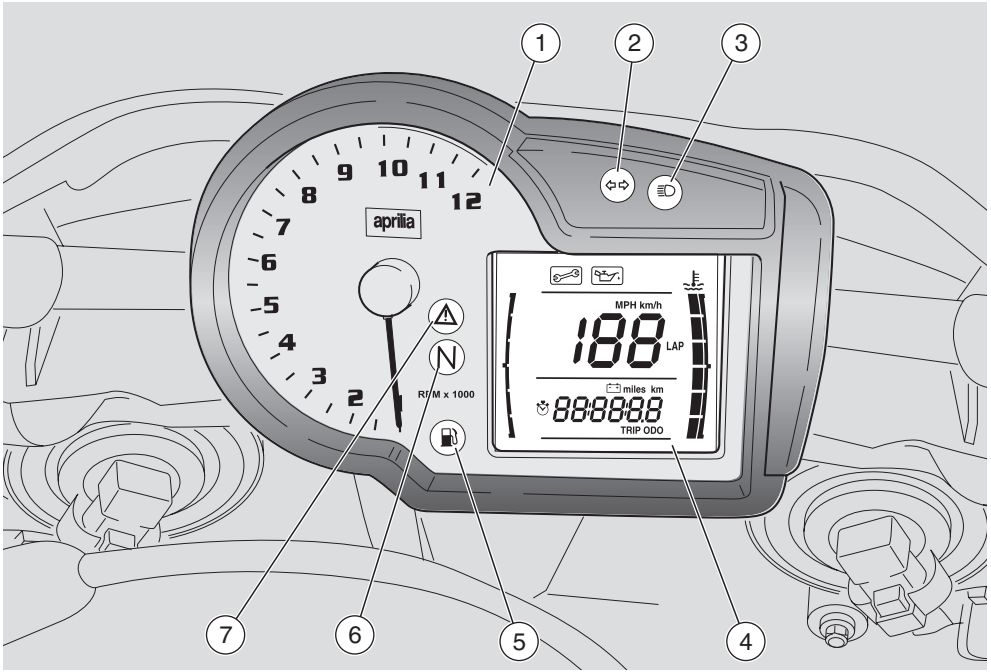
KEY

1) Passenger right footrest (snapping, closed/open) (in the countries where required)
2) Passenger holding strap
3) Rider seat
4) Air filter
5) Rear brake fluid reservoir
6) Fuel tank filler plug
7) Fuse carrier
8) Front brake fluid reservoir
9) Right rear-view mirror
10) Warning horn
11) Spark plug
12) Idle speed adjuster
13) Rear brake master cylinder
14) Rear brake control lever
15) Rider right footrest (with spring, always opened)
16) Mixer oil reservoir



KEY

1) Ignition switch / steering lock (○ - ⊠ - 🔒)
2) Cold start lever ( )
3) Turn indicator switch (⇦⇨)
4) Horn button ( )
5) Light dimmer switch (-)
6) MODE button
7) Clutch lever
8) Instruments and indicators
9) Front brake lever
10) Throttle grip
11) Starter button ( )
12) Engine kill switch (○ - ⊠)(in the countries where required)



KEY

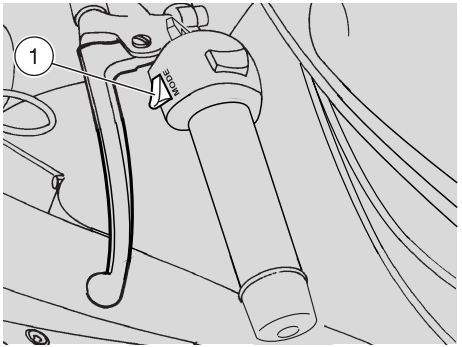
1) Rev counter
2) Green turn indicator warning light ( )
3) Blue high beam warning light ( )
4) Multifunction digital display: coolant temperature-clock-battery voltage-lap timer-mixer oil level indication ( )
5) Amber low fuel warning light ( )
6) Green neutral light (N)
7) Red general warning light ( )

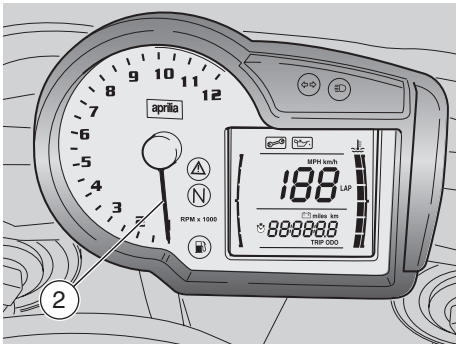
INSTRUMENTS AND INDICATORS TABLE

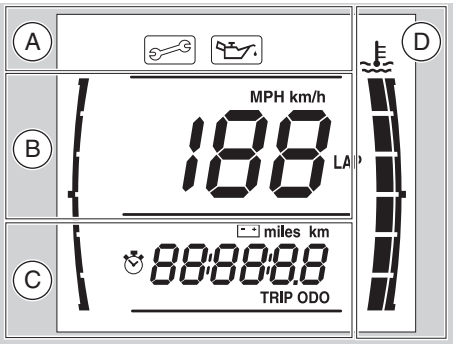
When the ignition key is turned to "○" with the engine stopped, all warning lights come on for a LED check-up and go out after two seconds. If one or more lights do not come on in this phase, contact an **aprilia** Authorised Dealer.

Description	Function
Revolution counter *rpm*	Indicates the number of revolutions of the engine per minute. **⚠ CAUTION** **Never exceed the engine max. speed rate, see page 41 (RUNNING-IN).**
Turn indicator warning light ⇦⇨	Blinks when the turn indicators are on.
High beam warning light ≣D	It comes on when high beams are on.
Low fuel warning light ⛽	It comes on when the quantity of fuel left in the tank is 2 ℓ. **When the light comes on, refuel as soon as possible, see page 27 (FUEL).**
Neutral indicator warning light N	Comes on when the gear is in neutral.
Error warning light ⚠	Comes on whenever the ignition switch is in position "○" and the engine is not running, thus checking the light for proper operation. If the light does not come on in this phase, contact an **aprilia** Authorised Dealer. **⚠ CAUTION** **If the light ⚠ stays on after starting or comes on during engine normal operation, this indicates that mixer reservoir level is too low or coolant temperature is too high.** **In such cases check and/or top up recommended levels and if necessary contact an aprilia Authorised Dealer.**

Description		Function	
Multifunction digital display	**Speedometer (km/h - MPH)**	Displays current, average or maximum riding speed (in kilometres or miles) depending on pre-setting, see page 18 (MULTIFUNCTION COMPUTER).	To toggle displayed value, see page 18 (MULTIFUNCTION COMPUTER).
	Odometer (KM - Mi)	Gives total distance covered or distance covered since the trip meter was last reset (in km or miles).	
	Coolant temperature (°C/°F)	Scales engine coolant temperature, see page 18 (MULTIFUNCTION COMPUTER). If danger zone is reached (T> 105°C), the six scale segments and general alarm light are on and logo is flashing on display. Now turn the key to "", let the engine cool down and check coolant level, see page 32 (COOLANT). Contact an **aprilia** Authorised Dealer. **⚠ CAUTION If the maximum allowed temperature is exceeded (114 °C - 237 °F), the engine may be seriously damaged.**	
	Mixer oil reserve on multifunction display	It comes on when the quantity of mixer oil left in the tank is 0.5 ℓ. **⚠ CAUTION The oil reserve symbol comes on to inform that mixer oil is in reserve; top up mixer oil accordingly, see page 31 (MIXER OIL RESERVOIR).**	
	Clock	Displays hour and minutes as preset, see page 18 (MULTIFUNCTION COMPUTER)	
	Battery voltage	Displays the battery voltage in Volts, see page 18 (MULTIFUNCTION COMPUTER)	
	Lap timer	Displays the different lap times, as preset, see page 18 (MULTIFUNCTION COMPUTER)	







MULTIFUNCTION COMPUTER

CONTROLS

1)MODE button:

press briefly to switch across functions;

press for several seconds (more than three seconds) to change settings.

When you turn the ignition key to " ⏻ ", the following instrument panel lights will turn on for two seconds:

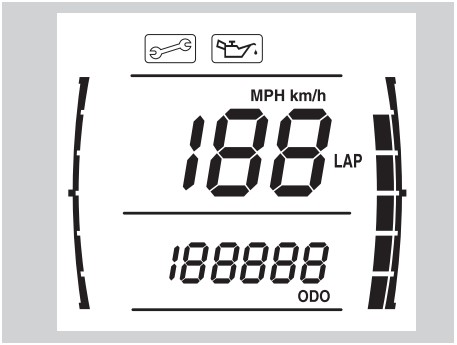
– All lights;
– Backlighting
– All display segments are on.

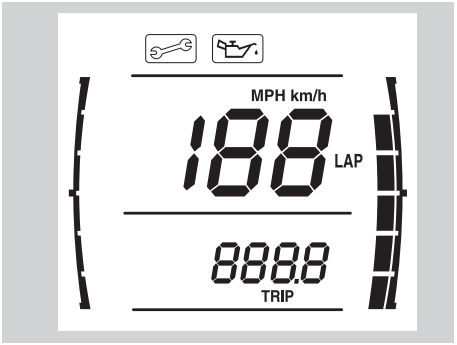
The rev counter index (2) gets to scale end and goes back to starting position.

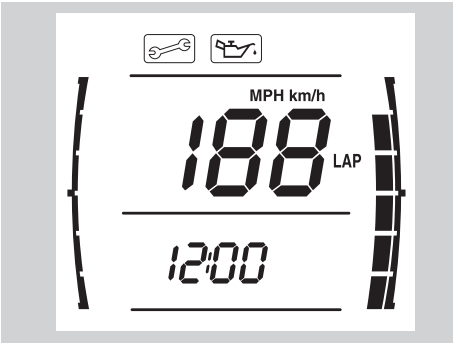
After a first check, all instruments immediately show current measured values with following standard display settings:

– Alarm symbol, (zone A);
– Current speed, (zone B);
– Odometer / trip meter / clock / battery voltage / lap timer (zone C) (*);
– Coolant temperature, (zone D).

(*) The function displayed the last time the key was turned off is the one displayed first.







Function description

- Press the MODE button a few times and the following functions are alternatively displayed in area C of the display:

– ODOMETER (ODO)
– TRIP METER (TRIP)
– CLOCK
– BATTERY VOLTAGE
– LAP TIMER

ODOMETER (ODO)

Displayed value shows total distance covered by the vehicle.

It can not be reset.

TRIP METER (TRIP)

With the ODO function displayed briefly press the MODE button to display trip meter value.

With the TRIP value displayed, press and hold the MODE button to reset it.

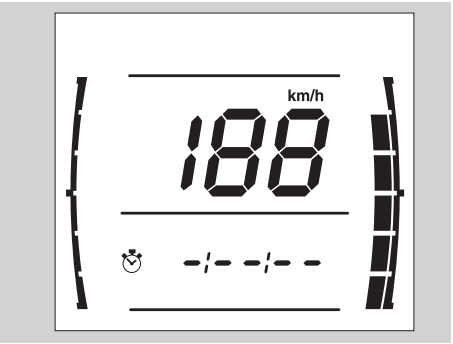
CLOCK

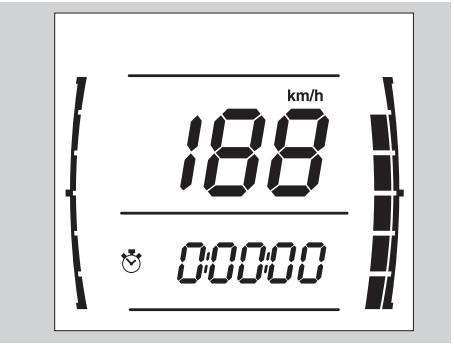
With the TRIP value displayed, briefly press the MODE button to display the time.

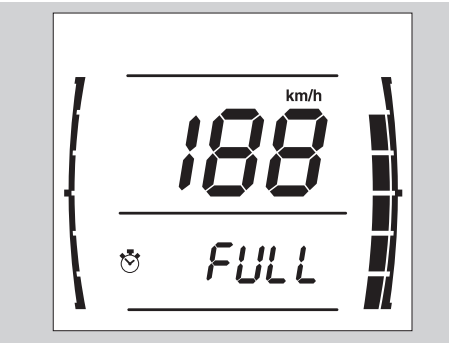
Setting the time

With vehicle stopped and time displayed, press the MODE button for several seconds to activate time setting mode. The display will show the two digits indicating hour; every time you press the MODE button, the value increases by one; if you press the MODE button when hour value is 12, the indication will go back to 1.

Press the MODE button for several seconds to save the value and start setting minutes, the display will only show minute digits; every time you press the MODE button, the value increases by one, if you press the MODE button when value is 59, the indication will go back to 0.







Do not disturb any button for three seconds to complete the procedure and the display will show set time.

LAP TIMER

While *Clock* function is displayed, briefly press MODE button to display Lap Timer function. Press the MODE button for several seconds with the vehicle running to enter the time acquisition mode, or press it with the vehicle stopped to enter the lap time display mode.

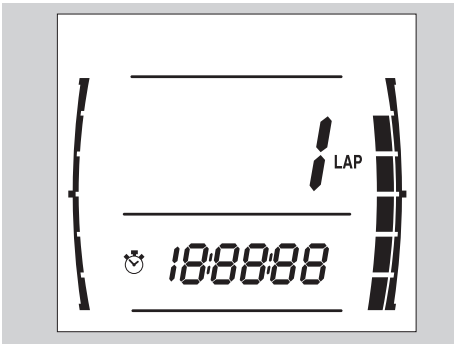
Start timer

With the vehicle running, briefly press the MODE button to start the lap timer. Press it once to start the timer, press it further within the first ten seconds to reset the lap timer. If you press it again after 10 seconds have elapsed since timer start, value is stored and timer for next lap starts. The value stored is displayed for the first 10 seconds, then the current value is shown.

Press the MODE button for several seconds to abort timing, the display will show the last value stored; timing session restarts as previously indicated.

As soon as 19 lap times have been stored, the display reads FULL, any new lap times will not be stored.

Detaching the battery will result in loss of any data stored.



View times

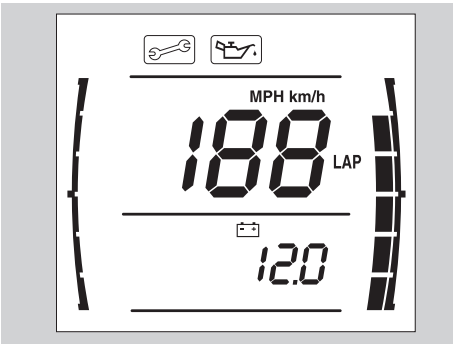
Entering the Lap timer function with vehicle stopped lets you view the times stored.

The central area of the display, usually dedicated to current speed, shows LAP session number and the lap time just below.

Restart the vehicle or hold the MODE button for several seconds to quit view time mode.

Delete times

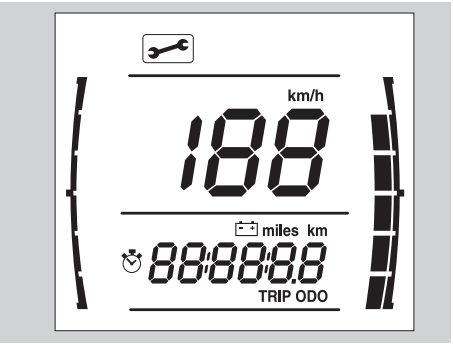
With the ODO function displayed, press the MODE button for several seconds to delete all lap times stored.



BATTERY VOLTAGE

With the *Clock* function displayed, briefly press the MODE button to display the battery icon and battery charge.

If an irregular voltage (not within a range of 10- 16 Volt) is detected by the system, the flashing symbol "🔋" will be displayed.



Service Interval

As the scheduled service interval is getting closer the display will show the wrench icon flashing for five seconds.

When scheduled service mileage is reached, the icon will stay on permanently.

First switch-on at 1,000 km (625 mi)

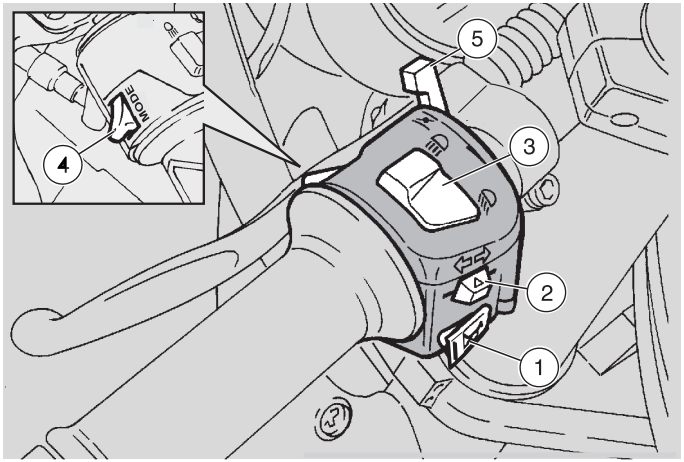
Following switch-ON's: every 5000 km (3106.8 mi)

This indication can be eliminated as soon as **aprilia** Authorised Dealer and Workshops carry out the necessary scheduled maintenance operations.

Kilometres or miles selection

When connecting the battery with key on "○", hold MODE button pressed more than ten seconds to toggle between kilometres (km) and miles (mi) readings both on odometer (ODO) and tachometer.

During the first five seconds the instrument panel will not react with any signal, but then current unit of measurement will start flashing. If MODE button is released before ten seconds have elapsed, the unit of measurement will still be the one previously in use.



NOTE The electric components only operate when the ignition switch is in the "○" position.

Light system operates only if engine is running.

CONTROLS ON THE LEFT SIDE OF THE HANDLEBAR

1) HORN BUTTON ( )

Press this button to operate the horn.

2) TURN INDICATOR SWITCH ( )

To indicate the turn to the left, move the switch to the left; to indicate the turn to the right, move the switch to the right. Press the switch to turn off the turn indicator.

3) DIMMER SWITCH (-)

When it is in position "": parking lights, instrument panel light and low beam are always on.

When it is in position "", the high beam comes on.

NOTE Lights turning off is subjected to engine run-off.

4) MODE BUTTON

Allows information from multifunction computer to be read and settings to be modified.

5) COLD START LEVER ( )

Move the lever downwards "" to activate the cold start device.

To disconnect the starter, move the lever "" to its initial position.

CONTROLS ON THE RIGHT SIDE OF THE HANDLEBAR

1) ENGINE KILL SWITCH (○ - ⊗)
(in the countries where required)

⚠ CAUTION

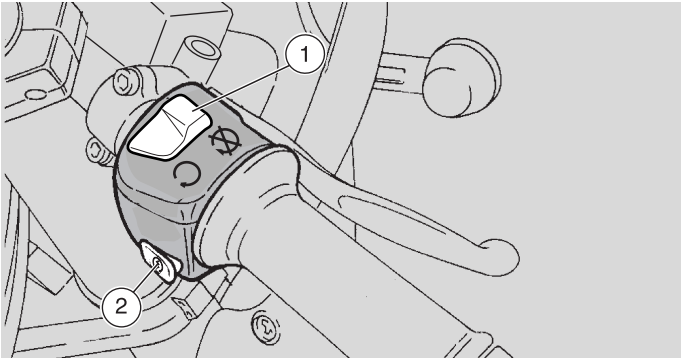
Do not operate the engine stop switch "○ - ⊗" while riding.

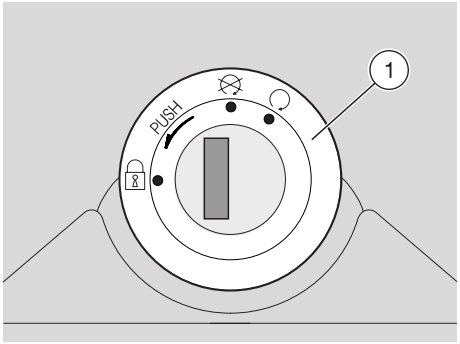
This switch serves as a safety or emergency switch.
With the switch pressed in position "○", it is possible to start the engine; the engine can be stopped by pressing the switch to position "⊗".

⚠ CAUTION

With the engine stopped and the ignition switch in position "○" , the battery may run flat.
When the vehicle has come to a standstill and you have stopped the engine, set the ignition switch to position "⊗".

2) STARTER BUTTON (ⓢ)
When the push button "ⓢ" is pressed, the starter motor will crank the engine. For the starting procedure, see page 36 (STARTING).

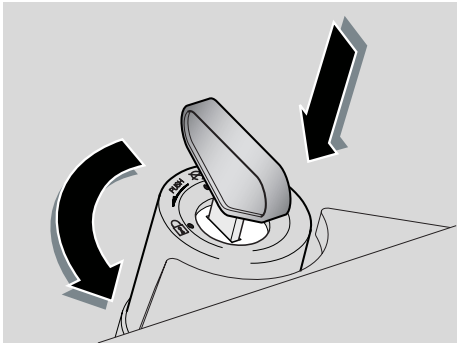




IGNITION SWITCH

The ignition switch (1) is positioned on the upper plate of the steering column.

NOTE The key operates the ignition switch/steering lock, the fuel tank lock and the seat lock.
Two keys (one spare key) are supplied with the vehicle.



STEERING LOCK

⚠ WARNING

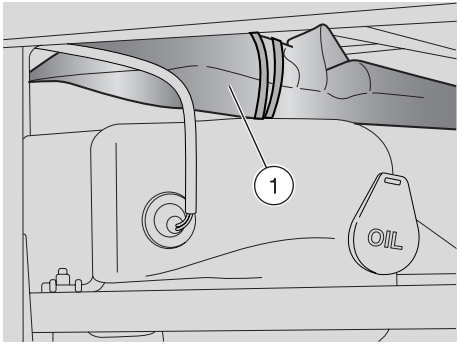
Never turn the key to position "🔒" when riding, or you will lose control of the vehicle.

OPERATION

To lock the steering:

- Completely turn the handlebar to the left (or to the right).
- Turn the key to "".
- Press the key in and turn it to "🔒".
- Extract the key.

Position	Function	Key removal
🔒 Steering lock	The steering is locked. It is not possible to start the engine or switch on the lights.	It is possible to remove the key.
	Neither the engine, nor the lights will operate.	It is possible to remove the key.
	The engine and the lights can be operated.	It is not possible to remove the key.



GLOVE/TOOL KIT COMPARTMENT

The glove/tool kit compartment is positioned under rider seat; to reach it proceed as follows:

◆ Remove the rider seat, see page 52 (REMOVING THE RIDER SEAT)

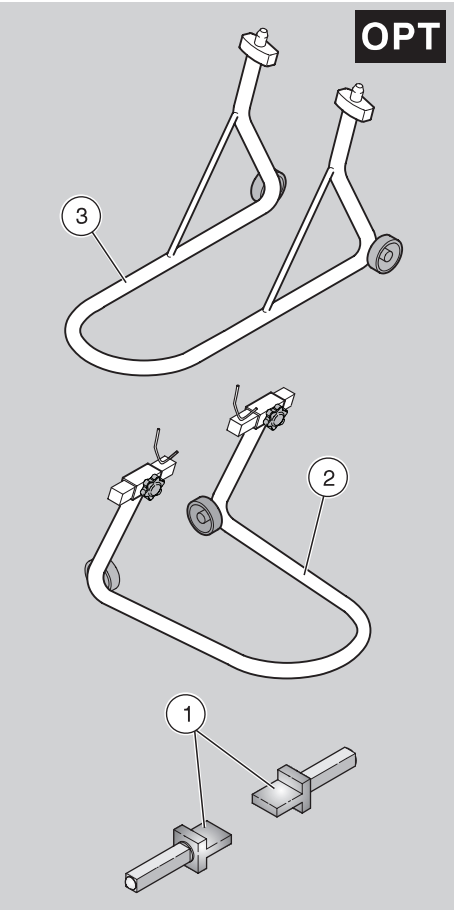
The tool kit (1) includes:
– 3 mm, 4 mm, 5 mm hexagonal spanners
– 10-11 mm double fork spanner
– 21-22 mm socket wrench for spark plug
– 3 mm Allen wrench
– Plug socket wrench
– Phillips screwdriver with handle
– Double-ended, Phillips / flat-headed screwdriver
– Bent shaft for socket wrench
– Tool case

Maximum allowed weight: 1.5 kg

SPECIAL TOOLS OPT

To perform some specific operations, it is advisable to use the following special tools (to be requested to an **aprilia** Authorised Dealer):

Tool	Operations	page
Support pins (1) for the rear support stand.	Positioning of the vehicle on the rear stand.	43
Rear support stand (2)	Rear wheel disassembly.	48
	Drive chain adjustment.	50
Front support stand (3)	Front wheel disassembly.	46



FUEL

⚠ WARNING

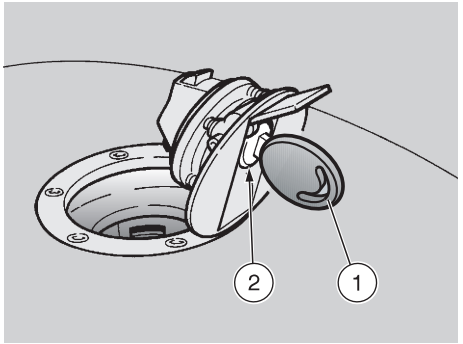
The fuel used in internal combustion engines is highly flammable and can become explosive under particular conditions. It is important to refuel and service the vehicle in a well-ventilated area, with the engine off. Do not smoke while refuelling or near fuel vapours, in any case avoid contact with naked flames, sparks and any other heat source or source of ignition to prevent fires or explosion.

Avoid spilling fuel, as it may ignite when in contact with hot engine parts.

In the event of accidental spillage, make sure that the area has completely dried before starting the engine.

Never fill the tank to the rim, as fuel expands from heat and when left under direct sunlight.

Screw the plug up carefully after refuelling. Avoid contact with skin, do not inhale fuel vapours; do not swallow fuel or transfer it between different receptacles using a hose.



DO NOT RELEASE FUEL INTO THE ENVIRONMENT.

KEEP AWAY FROM CHILDREN.

Use only unleaded fuel, in conformity with the DIN 51607 standard, min. O.N. 95 (R.O.N.) and 85 (M.O.N.).

FUEL TANK CAPACITY (reserve included): 13 ℓ

FUEL TANK RESERVE: 2 ℓ (mechanical reserve)

To refuel, proceed as follows:

- Insert the key (1) in the tank plug lock (2).
- Turn the key clockwise, pull and open the fuel flap.

GEARBOX FLUID

Check gearbox fluid according to SCHEDULED MAINTENANCE CHART, see page 44, and follow instructions on page 49 (CHECKING THE GEARBOX FLUID AND TOPPING UP).

Change gearbox fluid according to SCHEDULED MAINTENANCE CHART, see page 44, and follow instructions on page 50 (CHANGING GEARBOX FLUID).

NOTE Use high-quality oils with suitable grade, see page 71 (LUBRICANT CHART).

⚠ CAUTION

Prolonged or repeated contact with oil may cause severe skin damage.
Wash your hands carefully after handling engine oil.

DO NOT DISPOSE OF OIL IN THE ENVIRONMENT.
Put it in a sealed container and take it to the filling station where you usually buy it or to an oil salvage centre.

Wear latex gloves during servicing.

BRAKE FLUID - recommendations

NOTE This vehicle is fitted with front and rear disc brakes. Each braking system is operated by an independent hydraulic circuit.
The following information applies to both braking systems.

⚠ WARNING

Sudden changes in brake lever play or a spongy feel of the lever may indicate problems with the hydraulic system.
If in doubt about the braking efficiency of your bike or if you are not able to perform routine checks, contact your aprilia Authorised Dealer.

⚠ WARNING

Make sure that brake discs are neither oily nor greasy, especially after maintenance and checking operations.
Check that the brake hoses are not twisted or worn.
Prevent water or dust from accidentally getting into the circuit.

In case maintenance operations are to be performed on the hydraulic circuit, it is advisable to use latex gloves.

If the brake fluid gets in contact with the skin or the eyes, it can cause serious irritations.
Carefully wash the parts of your body that get in contact with the fluid. Consult a doctor or an oculist if the fluid gets in contact with your eyes.

DO NOT RELEASE INTO THE ENVIRONMENT.

KEEP AWAY FROM CHILDREN

⚠ CAUTION

When using the brake fluid, take care not to spill it on the plastic or painted parts, since it can damage them.

DISC BRAKES

⚠ WARNING

The brakes are critical to your safety and must always be kept in sleek running order. Check the brakes before each ride.

Have the brake fluid changed once a year by an aprilia Authorised Dealer.

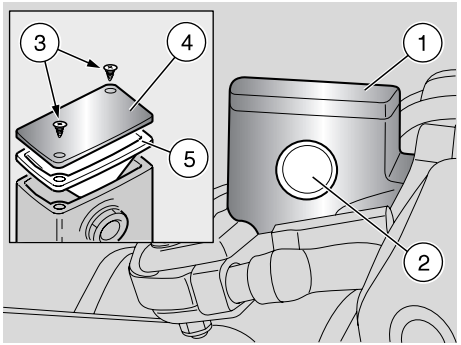
Use the brake fluid recommended in the lubricants table, see page 71 (LUBRICANT CHART).

This vehicle is fitted with front and rear hydraulic disc brakes. When the disc pads wear out, the level of the fluid decreases to automatically compensate for their wear.

The front brake fluid tank is positioned on the right handlebar, near the front brake lever coupling.

The rear brake fluid reservoir is positioned under top fairing on vehicle right side.

Periodically check the brake fluid level in the reservoirs, see page 29 (FRONT BRAKE), page 30 (REAR BRAKE) and the wear of pads, see page 55 (CHECKING THE BRAKE PADS FOR WEAR).



FRONT BRAKE

CHECK

NOTE Position the vehicle on firm and flat ground.

- Place the vehicle on the stand.
- Rotate the handlebar to the left, so that the fluid contained in the brake reservoir is parallel to the reservoir rim (1).
- Verify that glass (2) is completely covered by reservoir brake fluid.
- Top up if glass (2) is not fully covered by the fluid.

TOPPING UP

⚠ CAUTION

The brake fluid may flow out of the tank. Do not operate the brake lever if the screws (3) have been loosened or, most important, with the brake fluid reservoir cover removed.

- Loosen the two screws (3).
- Remove the cover (4).

NOTE In order not to spill the fluid while topping up, keep the fluid in the reservoir parallel to the rim.

⚠ WARNING

Avoid long exposure of brake fluid to air.
The brake fluid is hygroscopic and when in contact with the air it absorbs its humidity.
Leave the brake fluid tank open ONLY for the time necessary for topping up.

- Remove the gasket (5).

⚠ CAUTION

Exceed the "MIN" level while topping up.
It is advisable to top up until exceeding the "MIN" level only with new pads.

Brake fluid level decreases as the brake pads wear down.

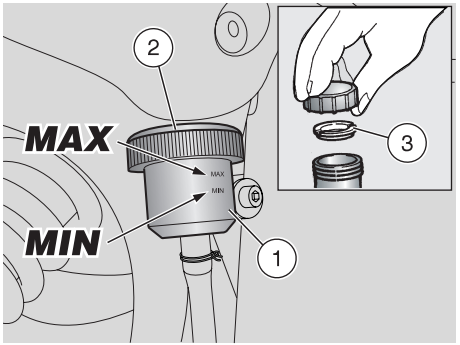
Do not exceed "MIN" level with worn out pads, since this will cause a fluid outflow when the pads are changed.

NOTE In order to reach the max. level, top up until covering the glass (2) completely and with the brake fluid reservoir rim parallel to the ground.

- Fill the tank with brake fluid, page 71 (LUBRICANT CHART), until the glass is completely covered.
- Put back the gasket (5) in its seat correctly.
- Put back the cover (4).
- Fit and tighten the two screws (3).

Check the braking efficiency.
If necessary, contact an aprilia Authorised Dealer.

In case of excessive travel or a spongy feel of the brake lever, or if there are air bubbles inside the circuit, contact an aprilia Authorised Dealer, since the system may need bleeding.



REAR BRAKE

CHECK

Position the vehicle on firm and flat ground.

⚠ WARNING

Risk of falling and overturning.
When the vehicle is straightened from the parking position to the driving position, the stand goes automatically up.

- Keep the vehicle upright, so as to keep the fluid in the reservoir (1) level with the cap (2).
- Make sure that the fluid level exceeds the "**MIN**" mark.
- Top up if the fluid does not reach at least the "**MIN**" mark.

TOPPING UP

⚠ CAUTION

The brake fluid may flow out of the tank. Do not operate the rear brake lever if the brake fluid reservoir cap has been loosened or removed.

- Unscrew and remove the plug (2).

⚠ WARNING

Avoid long exposure of brake fluid to air.
The brake fluid is hygroscopic and when in contact with the air it absorbs its humidity.
Leave the brake fluid tank open ONLY for the time necessary for topping up.

NOTE In order not to spill the brake fluid while topping up, keep the fluid in the tank parallel to the tank rim (in horizontal position).

- Remove the gasket (3).
- Use a syringe to top up reservoir (1) with recommended brake fluid, see page 71 (LUBRICANT CHART), until reaching correct level that is in-between the marks "**MIN**" and "**MAX**".

⚠ CAUTION

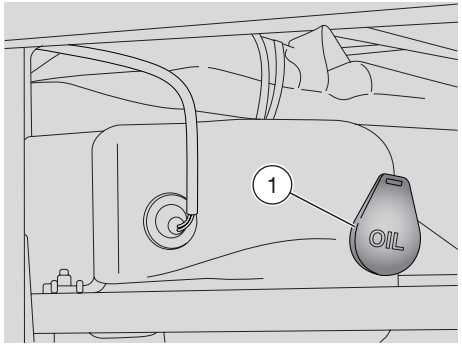
It is advisable to top up until reaching the "MAX" level only with new pads.
Brake fluid level decreases as the brake pads wear down.
Do not reach the "MAX" level with worn out pads, since this will cause a fluid outflow when the pads are changed.

- Reassemble the parts following the procedure in reverse order.

⚠ WARNING

Check the braking efficiency.
If necessary, contact an aprilia Authorised Dealer.

In case of excessive travel or a spongy feel of the brake lever, or if there are air bubbles inside the circuit, contact an aprilia Authorised Dealer, since the system may need air bleeding.



MIXER OIL RESERVOIR

Top up mixer oil reservoir according to SCHEDULED MAINTENANCE CHART, see page 44.

This vehicle is equipped with separate mixer mixing fuel with oil necessary for engine lubrication; see page 71 (LUBRICANT CHART).
The reserve is indicated by the general alarm light that comes on and by the mixer oil reserve icon "" that is displayed on the instrument panel, see page 15 (INSTRUMENTS AND INDICATORS).

⚠ CAUTION

Using the vehicle with no mixer oil left, seriously damages the engine.

In the event you run out of mixer oil or the mixer oil hose is removed, contact an aprilia Authorised Dealer that will bleed the system.

This operation is necessary because engine might be damaged if running with air in the mixer oil system.

To top up mixer oil proceed as follows:

- Remove the rider seat, see page 52 (REMOVING THE RIDER SEAT).
- Remove the cap (1).

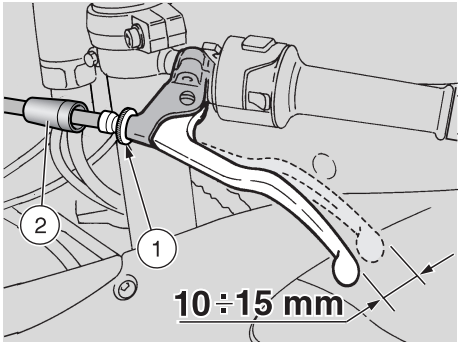
TANK CAPACITY: 1.5 ℓ,

TANK RESERVE: 0.5 ℓ

⚠ CAUTION

Wash your hands carefully after handling oil.
DO NOT DISPOSE OF OIL IN THE ENVIRONMENT

KEEP AWAY FROM CHILDREN.



ADJUSTING THE CLUTCH

Adjust the clutch when the engine stalls or the vehicle tends to move forward with pulled clutch lever and gear engaged or if the clutch slips causing a "delay" in the acceleration with respect to engine rpm.

Perform minor settings by means of adjuster (1):

- Withdraw the protection (2).
- Rotate adjuster (1) until achieving a 10÷15 mm free play at clutch lever end (see figure).
- Check free play at clutch lever end.
- Refit the protection (2).

⚠ WARNING

If it is not possible to obtain a correct adjustment or if the clutch does not operate properly, contact your aprilia Authorised Dealer.

NOTE Make sure that the clutch cable is intact: the inner cable and outer sheath must not be worn or flattened at any point.

- Lubricate clutch cable regularly with a suitable lubricant, see page 71 (LUBRICANT CHART), to prevent early wear and corrosion.

COOLANT

⚠ CAUTION

Do not use the vehicle if the coolant is below the minimum prescribed level.

Check coolant level and have it changed according to SCHEDULED MAINTENANCE CHART, see page 44.

⚠ WARNING

Coolant is toxic when ingested. Contact with eyes or skin may cause irritation.

In the event of contact with eyes or skin, rinse repeatedly with abundant water and seek medical advice. In the event of ingestion, induce vomiting, rinse mouth and throat with abundant water and seek medical advice immediately.

DO NOT RELEASE INTO THE ENVIRONMENT.

KEEP AWAY FROM CHILDREN.

Take care not to spill coolant onto hot engine parts. It may ignite and produce invisible flames.

Wear latex gloves during servicing.

Contact an aprilia Authorised Dealer for the replacement.

Coolant mixture is a 50% solution of water and antifreeze.

This is the ideal solution for most operating temperatures and provides good corrosion protection.

This solution is also suited to the warm season, as the mixture is less prone to evaporative loss and will reduce the need for top-ups.

The mineral salt deposits left in the radiator by evaporated water are thus reduced and the efficiency of the cooling system remains unchanged.

When temperature drops below zero degrees centigrade, check the cooling system frequently and add more antifreeze (up to 60% maximum) to the solution.

Use distilled water in the coolant mixture. Tap water will damage the engine.

⚠ WARNING

Do not remove the filler plug (1) when the engine is hot, since coolant is very hot and under pressure.

CHECKING AND TOPPING UP

⚠ WARNING

Wait for the engine to cool down before checking or topping up coolant level.

- Stop the engine and wait until it has cooled down.

NOTE Position the vehicle on firm and flat ground.

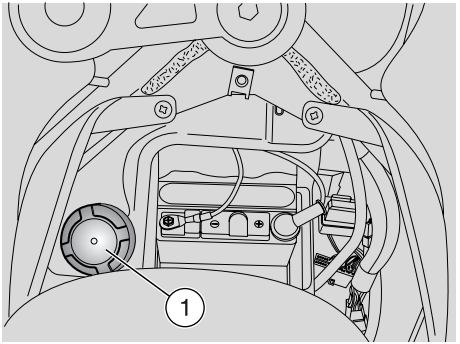
⚠ WARNING

Risk of falling and overturning.
When the vehicle is straightened from the parking position to the driving position, the stand goes automatically up.

- Keep the vehicle in vertical position, with the two wheels resting on the ground.
- Remove rider seat, see page 52 (REMOVING THE RIDER SEAT)
- Move fuel tank away see page 54 (MOVING FUEL TANK AWAY).
- Loosen the filler plug (1) (by turning it anticlockwise by two turns), without removing it.
- Wait a few seconds in order to release any residual pressure.
- Unscrew and remove the plug (1).

⚠ WARNING

Coolant is toxic when ingested. Contact with eyes or skin may cause irritation.
Do not put your fingers or any other object into the filler opening in order to ensure that there is coolant.



Otherwise proceed as follows:

- Top up with coolant, see page 71 (LUBRICANT CHART), until its level almost reaches the area where fuel tank diameter gets smaller. Do not exceed this level, otherwise the fluid will flow out while the engine is running.
- Put back the filler cap (1).

⚠ CAUTION

In case of excessive consumption of coolant and in case the tank remains empty, make sure that there are no leaks in the circuit.
Contact an aprilia Authorised Dealer for the repair operation.

TYRES

This vehicle is equipped with tubeless tyres.

⚠ WARNING

Periodically check the tyre inflation pressure at room temperature, see page 68 (TECHNICAL DATA).

Measuring pressure on hot tyres will lead to inaccurate measurement.
It is especially important to measure tyre pressure before and after a long trip.

Overinflated tyres will not absorb bumps when riding on rough road surfaces and resulting vibration is transferred through the handlebar, giving a harsh ride and reducing tyre grip especially during cornering.

Conversely, underinflation will put more stress on the sidewalls and the tyre may slip on the rim or even come off the rim, leading to loss of control.

The tyres could come off the rims under hard braking.
Finally, the vehicle could skid during cornering.

Inspect tyre surface condition and check for wear, as worn tyres lead to poor road holding and handling.

Have a tyre changed when worn or punctured, if the puncture in the tread is larger than 5 mm.
Have the wheels balanced after each tyre repair.

Use only tyres in the size suggested by aprilia, see page 68 (TECHNICAL DATA). Always check that the caps are in place on the valves, or the tyres may deflate suddenly. Change, repair, maintenance and balancing operations are very important and should be carried out by qualified technicians with appropriate tools.

For this reason, it is advisable to have the above mentioned operations carried out by an aprilia Authorised Dealer or by a qualified tyre repairer. New tyres may be coated with an oily film: ride carefully until covering several kilometres. Do not oil the tyres with unsuitable fluids.

If the tyres are old, even if not completely worn out, they may become hard and may not ensure good road holding.

In this case, replace them.

MINIMUM THREAD DEPTH LIMIT:

front: ..... 2 mm
rear: ..... 2 mm

CATALYTIC SILENCER

⚠ WARNING

Avoid parking the vehicle -catalytic version- near dry brush wood or in places easily accessible to children, as the catalytic silencer becomes extremely hot during use; be very careful and avoid any kind of contact until it has completely cooled down.

⚠ CAUTION

Do not use leaded fuel, since it seriously damages the catalytic converter.

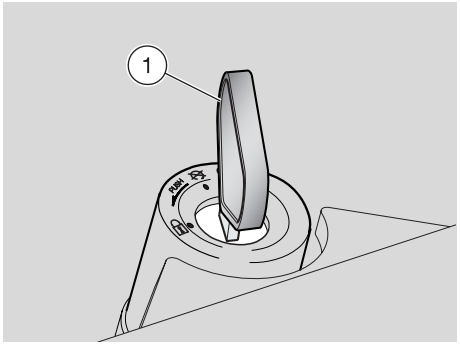
⚠ WARNING

Before departure, always carry out a preliminary checking of the vehicle to make sure that it operates correctly and safely, see the table (PRELIMINARY CHECKING OPERATIONS).
Failure to comply with these checking operations can cause severe personal injuries or damages to the vehicle.

If you have any doubts on the operation of the vehicle controls or believe that any vehicle components might be faulty, do not hesitate to contact an aprilia Authorised Dealer.
It does not take long to carry out a check-up and this operation ensures you much more safety.

PRELIMINARY CHECKING OPERATIONS

Part	Check	Page
Front and rear disc brakes	Check for proper operation, check lever free play, fluid level and check for leaks. Check the wear of the pads. Top up brake fluid level if necessary.	28, 29, 30
Throttle	Check for smooth operation; throttle should snap fully open and closed at all positions of the steering. If necessary, adjust and/or lubricate it.	57
Mixer oil / gearbox fluid	Check and/or top up, if necessary.	27, 31, 49
Wheels / tyres	Check tyre surface, inflation pressure. Check for wear or damage.	33
Brake levers	Check for smooth operation. Lubricate the articulations and adjust the stroke if necessary.	31
Steering	Steering should rotate smoothly and evenly. There should be no play or looseness.	–
Clutch	The free play at the end of the clutch control lever must be approximately 10-15 mm. The clutch must work without jerking and/or slipping.	31
Side stand	Check for smooth operation and make sure that the spring tension brings it back to its normal position. Lubricate joints and connections, if necessary.	42, 61
Fastening elements	Make sure that the fastening elements are not loose. Adjust or tighten as required.	–
Drive chain	Check the slack.	51, 52
Fuel tank	Check the fuel level and top up, if necessary. Make sure there are no leaks or obstacles in the circuit.	66
Lights, warning lights, horn and electrical devices	Check horn and indicators for proper operation. Change bulbs or fix a failure, if necessary.	62, 63, 64



STARTING

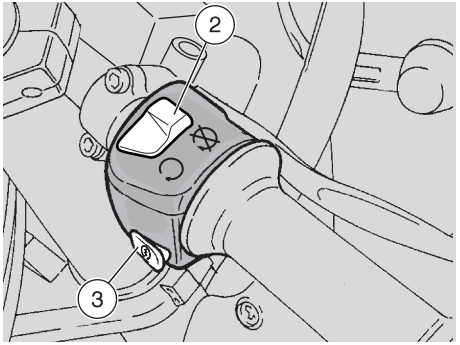
⚠ WARNING

Exhaust emissions contain carbon oxide, which is a poisonous gas and extremely harmful if inhaled. Do not start the engine in an enclosed space or poorly ventilated area.
Failure to heed this warning may cause loss of consciousness or even lead to death by asphyxia.

⚠ WARNING

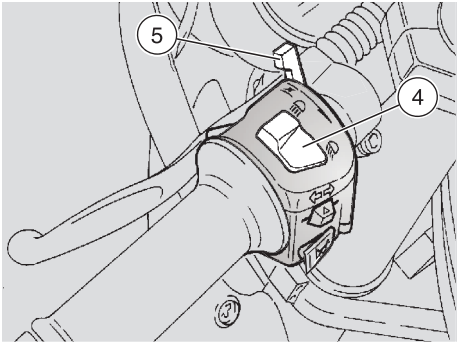
Risk of falling and overturning.
When the vehicle is straightened from the parking position to the driving position, the stand goes automatically up.

- Sit astride the vehicle.



- Turn the key (1) and set the ignition switch to position "○".
- Operate a brake to lock at least one wheel.
- Shift the gear change lever to neutral (green warning light "↑↓" on).
- Set the engine kill switch (2) to "○" (this only applies to some market versions).
- Make sure that the dimmer switch (4) is in position "≡D".
- Press the engine starter button "⊛" (3) for a while.
- To start the engine from cold, push the cold start lever (5) downward.

NOTE Do not hold down the starter button "⊛" for more than fifteen seconds or the battery could run flat. If the engine does not start in this lapse of time, wait ten seconds and press the starter button "⊛" again.



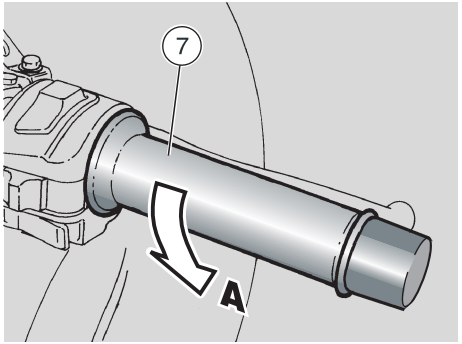
- Press the starter button "⊛" (3) without accelerating and release it as soon as the engine starts.

⚠ CAUTION

The mixer oil reserve light "🛢" comes on to inform that mixer oil is in reserve; top up mixer oil accordingly, see page 31 (MIXER OIL RESERVOIR).

⚠ CAUTION

Avoid pressing the starter button "⊛" (3) when the engine is running or the starter motor may be damaged.



- Keep at least one brake operated and do not accelerate until you are ready to move off.

⚠ CAUTION

Never move off abruptly with a cold engine.
To reduce emissions and fuel consumption, ride slowly until covering several kilometres/miles to warm the engine up to operating temperature.

Warmed-up engine:

- Push the cold start lever "|↘|" (5) up when the engine is warm.

STARTING
WITH FLOODED ENGINE

If the starting procedure is not carried out properly or if there is too much fuel in the intake ducts, the engine may get flooded.

To clean a flooded engine:

Press the starter button "⍟" (3) for a few seconds (letting the engine crank) with completely open throttle (7) **(Pos. A).**

STARTING WITH COLD ENGINE

If ambient temperature is low (close to or below 0°C), you may have trouble starting the engine at the first attempt.

If so:

- Rotate the cold start lever (5) downwards.
- Hold down the starter button "⍟ " (3) for at least ten seconds and open the throttle grip (7) slightly.

If the engine starts:

- Release of the throttle twistgrip (7).
- Rotate the cold start lever "|↘|" (5) upwards.
  If idle speed is erratic, flip the throttle grip (7) moderately several times.

If the engine fails to start

Wait a few seconds and repeat the starting procedure.

STARTING
AFTER A LONG PERIOD OF INACTIVITY

After a long period of inactivity, let the starter run for about ten seconds without accelerating, in order to ensure the filling of the float chamber.
To start the engine, accelerate moderately and perform the starting procedure.

MOVING OFF AND RIDING

⚠ WARNING

Do not position any object inside the front fairing (between the handlebar and the instrument panel), in order not to hinder the rotation of the handlebar and visibility toward the instrument panel.

NOTE Before moving off, carefully read section “safe riding”, see page 5 (SAFE RIDING).

⚠ WARNING

Any mention to the use of the vehicle with passenger is to be intended as referred only to the countries where this is allowed.

If you are riding solo, make sure the passenger footpegs are folded up before moving off.
While riding, keep your hands on the handlebar and your feet on the footpegs.

NEVER RIDE IN ANY POSITION OTHER THAN THE RECOMMENDED RIDING POSITION.

If you are riding with a passenger, give your passenger proper instructions to avoid problems when manoeuvring.

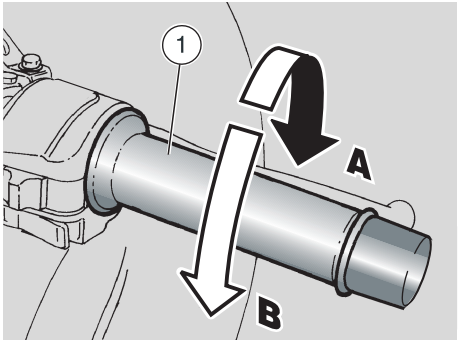
To move off:

- Adjust the rear-view mirrors.

⚠ WARNING

With the vehicle at rest, try to get acquainted with the use of the rear-view mirrors. The reflecting surface is convex, therefore the objects seem to be farther away than they actually are. These mirrors offer a “wide-angle” view. It may take some time to learn to accurately judge the distance of traffic behind.

- Ride at reduced speed for the first kilometres/miles, in order to warm the engine up.

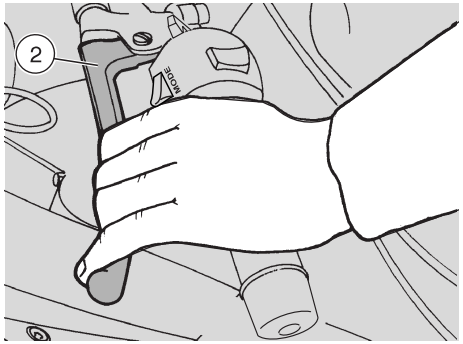


- With released throttle grip (1) (**Pos.A**) and engine idling, pull the clutch lever (2) completely.
- Engage the first gear, by pushing the gear change lever (3) downwards.
- Release the brake lever (pulled on the starting).

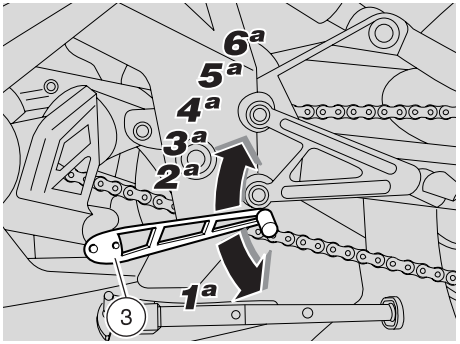
⚠ WARNING

On departure, the abrupt release of the clutch lever may cause the engine to stall or the vehicle to jerk forward.

Never accelerate abruptly or excessively when releasing the clutch lever, in order to prevent the clutch from “slipping” (slow release) or the front wheel from raising “rearing up” (quick release).



- Slowly release the clutch lever (2) and at the same time accelerate by slightly turning the throttle grip (1) (**Pos.B**).
  The vehicle will start moving.
- Increase the speed by gradually rotating the throttle grip (1) (**Pos. B**), see page 41 (RUNNING-IN).



To engage the second gear:

⚠ CAUTION

Proceed quickly.
Never ride the vehicle at too low rpm.

- Release throttle grip (1) (**Pos. A**), pull the clutch lever (2) and lift the gear change lever (3). Release the clutch lever (2) and accelerate.
- Repeat the last two operations and shift up.

⚠ CAUTION

The mixer oil reserve light "" comes on to inform that mixer oil is in reserve; top up mixer oil accordingly, see page 31 (MIXER OIL RESERVOIR).

The downshifting should be carried out in the following situations:

- When riding downhill or when braking, in order to increase the braking action by using the compression of the engine.
- When riding uphill, if the gear engaged is not suitable to the speed (high gear, moderate speed) and the engine rpm decreases.

⚠ CAUTION

Shift the gears one by one; the simultaneous downshifting of more than one gear may make you exceed the maximum rpm (redline).
Before and during the downshifting, release the throttle grip and decelerate, in order to avoid the "redline".

To shift down, proceed as follows:

- Release the throttle grip (1) (**Pos.A**).
- If necessary, pull the brake levers moderately and decrease the speed of the vehicle.
- Pull the clutch lever (2) and lower the gear change lever (3) to shift down.
- If the brake levers are pulled, release them.
- Release the clutch lever and accelerate moderately.

⚠ WARNING

Avoid opening and closing the throttle repeatedly and continuously, so that you do not accidentally lose control of the vehicle.
When you need to brake, close the throttle and use both brakes for smooth braking; take care to apply the right amount of pressure to both brakes.

Using one brake only reduces braking force significantly and may lock a wheel resulting in loss of grip.

To stop uphill, decelerate completely and use the brakes to keep the vehicle at standstill.
The use of the engine to keep the vehicle steady may cause the overheating of the clutch.

⚠ WARNING

When approaching a bend, slow down or brake in good time. Take the bend at moderate, steady speed or accelerate slightly. Late braking may put the vehicle into a skid.

Continued application of the brakes on long downhill grades may cause the brakes to overheat, thereby reducing braking efficiency. Exploit the engine compression and shift down by putting on both brakes intermittently.
Never ride downhill with the engine off!

If the road surface is wet or slippery (snow, ice, mud, etc.), ride slowly, do not brake or swerve suddenly, or you may lose grip and fall.

⚠ WARNING

Watch out for obstacles or sudden changes in the road surface.
Rough roads, rails, manhole covers, road markings, large steel plates near roadwork become slippery in the wet and should be avoided or negotiated with the greatest care, riding carefully and keeping the vehicle upright.

Signal your intention to change lane or turn in good time using the turn indicators and avoid sudden swerving or movements.
Switch off the turn indicators as soon as you have changed direction.

Be extremely careful when overtaking or being overtaken.
In case of rain, the water cloud created by big vehicles reduces visibility; the air shift may make you lose control of the vehicle.

RUNNING-IN

⚠ WARNING

After the first 1000 km (621.37 mi), carry out the checking operations indicated in the column "After running-in", of SCHEDULED MAINTENANCE CHART, see page 44, in order to avoid hurting yourself or other people and/or damaging the vehicle.

Correct engine running-is essential to ensuring proper performance and durability. Twisty, hilly roads are ideal for an effective running-in of engine, suspensions and brakes.

For the first 500 km (312 mi), keep to the following indications:

0-100 km (0-62 mi)
Until you have covered the first 100 km (62 mi), use the brakes gently and avoid hard, prolonged braking. This ensures a correct bedding-in of the pads on the brake disc.

0-300 km (0-187 mi)
Do not keep the throttle twistgrip open for more than half its travel for too long.

300-500 km (187-312 mi)
Do not keep the throttle twistgrip open for more than 3/4 of its travel for too long.

STOPPING

⚠ WARNING

If you can, do not stop or slow down suddenly and avoid limit-braking.

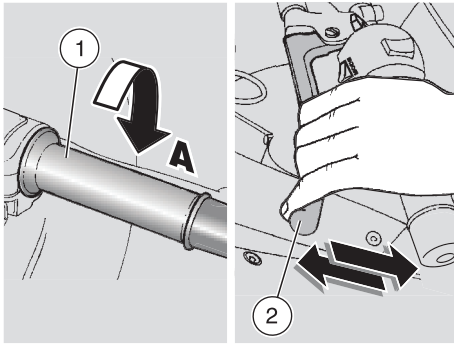
- Release the throttle grip (1) (**Pos. A**), gradually apply the brakes and at the same time shift down in order to decrease the speed, see page 38 (MOVING OFF AND RIDING).

Once the speed has decreased, before stopping the vehicle:

- Pull the clutch lever (2) in order to prevent the engine from stalling.

When the vehicle has come to rest:

- Select neutral (green warning light "N" on).
- Release the clutch lever.
- In case of a brief stop, keep at least one brake on.



PARKING

⚠ WARNING

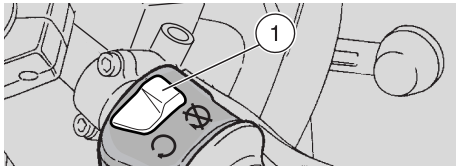
Park the vehicle on firm and level ground, to prevent it from falling.

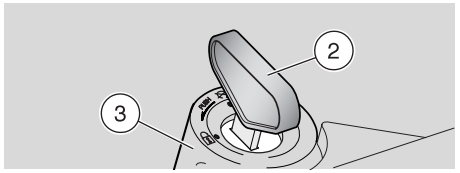
Do not lean the vehicle against a wall, or lay it on the ground.

Make sure that the vehicle and especially its red-hot parts do not represent a danger for persons and children.

Do not leave the vehicle unattended with the engine running or the key in the ignition switch.

Do not sit on the vehicle when the stand is down.

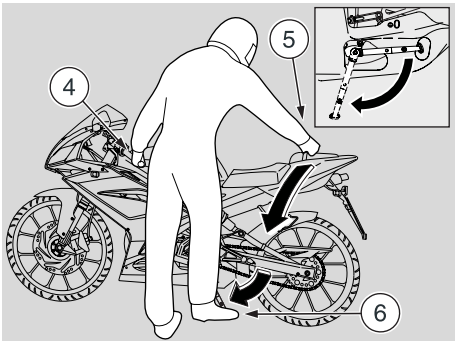




- Stop the vehicle, see page 41 (STOPPING).
- Set the engine stop switch (1) to position "⊗".
- Rotate the key (2) and set the ignition switch (3) to position "⊗".
- Place the vehicle on the stand, see on the side (POSITIONING THE VEHICLE ON THE STAND).

NOTE Never leave the key in the ignition switch.

- Lock the steering, see page 25 (STEERING LOCK) and remove the key.



POSITIONING THE VEHICLE ON THE STAND

- Grasp the left grip (4) and the passenger grab strap (5).

⚠ WARNING

Risk of falling and overturning.
When the vehicle is straightened from the parking position to the driving position, the stand goes automatically up.

- Press the side stand with your right foot and extend it completely (6).
- Incline the vehicle until the stand rests on the ground.
- Turn the handlebar fully to the left.

⚠ WARNING

Make sure that the vehicle is stable.

SUGGESTIONS TO PREVENT THEFT

⚠ CAUTION

Do not use any "brake lock" devices. Failure to heed this warning can seriously damage the braking system and lead to an accident thus provoking serious injuries or death.

NEVER leave the key in the ignition switch and always use the steering lock. Park the vehicle in a safe place, possibly in a garage or at a guarded parking place. When possible, use an additional antitheft device. Make sure you have all the necessary documents with you and that the road tax has been paid. Write your personal data and telephone number in this page to help trace the vehicle back to you in the event it is stolen and subsequently recovered.

SURNAME: .....

NAME:.....

ADDRESS:.....

.....

TELEPHONE NO.:.....

NOTE Very often stolen vehicles are identified thanks to the data written in the use/maintenance manual.

⚠ WARNING

Risk of fire.

Keep fuel and other flammable substances away from electric components.

Before beginning any maintenance operation or any inspection of the vehicle, stop the engine, extract the key from the ignition switch, wait until the engine and the exhaust system have cooled down and if possible lift the vehicle by means of the proper equipment, on firm and flat ground.

Ensure the area is well ventilated before proceeding.

Keep away from the red-hot parts of the engine and of the exhaust system, in order to avoid burns.

⚠ WARNING

Do not put any vehicle parts into your mouth: vehicle components are not edible and some of them are harmful or even toxic.

⚠ CAUTION

Unless expressly indicated otherwise, reassembly is a reversal of the disassembly procedure.

Wear latex gloves during servicing.

Routine maintenance operations can usually be carried out by the user, but sometimes specific tools and specific technical skills may be required.

In case periodic maintenance operations, assistance or technical advice are needed, contact an **aprilia** Authorised Dealer, who will ensure you prompt and accurate servicing.

We recommend having the vehicle road-tested at the **aprilia** Authorised Dealer after repair or servicing.

In addition, perform the "Pre-ride checks" after each maintenance operation, see page 35 (PRELIMINARY CHECKING OPERATIONS)

SCHEDULED MAINTENANCE CHART

Suitable maintenance ensures optimum operating conditions and performance and it is essential for vehicle long life.

This is why **aprilia** has made a list of checks and service operations to be performed against payment, which are summarised in the table on next page. It would be recommended to promptly report any failure to an **aprilia** Authorised Dealer so that it can be immediately repaired, rather than waiting until the following scheduled service inspection.

Timely service inspections are necessary for a correct use of the warranty. Please see the "Warranty booklet" for any other detail on Warranty application and on "Scheduled Maintenance".

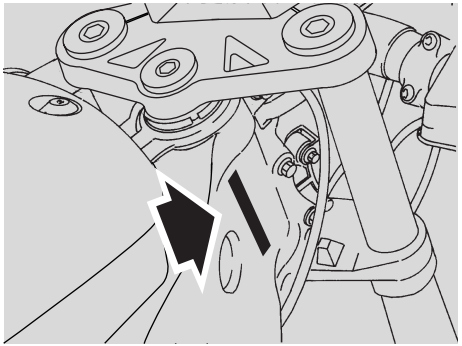
Every 1000 km (621 mi) or 2 months
Operation
Spark plug – check
Air filter – clean
Carburettor – clean and adjust
Coolant – check
Steering – check
Brake control levers – lubricate
Clutch control lever - adjust
Brake pads – check
Brake fluid – change every two years
Drive chain – check
Drive chain (tension) - check
Nut, bolt, screw tightening – check
Front fork (hydraulic fluid) – check
Battery: terminals tightening – check
Tyres (pressure) – check
Head bolts and screws – check
Fuel and oil lines – check
Testing of vehicle and braking system – check
5000 km (3106 mi) or 12 months
Operation
Spark plug – change
Air filter – clean
Carburettor – clean and adjust
Coolant – check
Brake control levers – lubricate
Clutch control lever - adjust
Brake pads – check
Brake fluid level – check
Brake fluid – change every two years
Drive chain – replace
Drive chain (tension) - check
Rear sprocket nut, bolt, screw tightening - check
Front fork (hydraulic fluid) – check
Battery: terminals tightening – check
Tyres (condition and wear) - check
Tyres (pressure) – check
Wheel bearings – check
Piston rings – check
Head bolts and screws – check
Fuel and oil lines – check
Testing of vehicle and braking system – check

Every 10000 km (6213 mi) or 24 months
Operation
Spark plug – change
Air filter – clean
Carburettor – clean and adjust
Coolant – change
Radiator – clean
Steering – check
Brake control levers – lubricate
Clutch control lever – adjust
Brake pads – check
Brake hoses – check
Brake fluid – change every two years
Drive chain – replace
Drive chain (tension) – check
Nut, bolt, screw tightening – check
Rear sprocket nut, bolt, screw tightening – check
Front fork (hydraulic fluid) – change
Rear shock absorber – check
Battery: terminals tightening – check
Headlight – adjust
Tyre (condition and wear) - check
Tyres (pressure) – check
Wheel bearings – check
Cylinder head – piston – clean
Piston rings – replace
Fuel and oil lines – replace
Testing of vehicle and braking system – check
Oil filter – change

Every 15000 km (9320 mi) or 36 months
Operation
Spark plug – change
Air filter – clean
Carburettor – clean and adjust
Coolant – check
Brake control levers – lubricate
Clutch control lever – adjust
Brake pads – check
Brake fluid level – check
Brake fluid – change every two years
Drive chain – replace
Drive chain (tension) – check
Rear sprocket nut, bolt, screw tightening – check
Front fork (hydraulic fluid) – check
Rear shock absorber - check
Battery: terminals tightening – check
Tyres (condition and wear) - check
Tyres (pressure) – check
Wheel bearings – check
Piston rings – check
Head bolts and screws – check
Fuel and oil lines – check
Testing of vehicle and braking system – check

Every 20000 km (12427 mi) or 48 months
Operation
Spark plug – change
Air filter – clean
Carburettor – clean and adjust
Coolant – change
Radiator – clean
Steering – check
Brake control levers – lubricate
Clutch control lever - adjust
Brake pads – check
Brake hoses – check
Brake fluid – change every two years
Drive chain – replace
Drive chain (tension) – check
Nut, bolt, screw tightening – check
Rear sprocket nut, bolt, screw tightening – check
Front fork (hydraulic fluid) – change
Rear shock absorber – check
Battery: terminals tightening – check
Headlight – adjust
Tyres (condition and wear) – check
Tyres (pressure) – check
Wheel bearings – check
Piston rings – replace
Fuel and oil lines – replace
Testing of vehicle and braking system – check

Every 25000 km (15534 mi) or 60 months
Operation
Spark plug – change
Air filter – clean
Carburettor – clean and adjust
Coolant – change
Brake control levers – lubricate
Clutch control lever – adjust
Brake pads – check
Brake fluid – change every two years
Drive chain – replace
Drive chain (tension) – check
Rear sprocket nut, bolt, screw tightening – check
Front fork (hydraulic fluid) – check
Battery: terminals tightening – check
Tyres (condition and wear) – check
Tyres (pressure) – check
Wheel bearings – check
Piston rings – check
Head bolts and screws – check
Fuel and oil lines – check
Testing of vehicle and braking system – check



IDENTIFICATION DATA

It is a good rule to report the frame and engine numbers in the space provided in this manual.

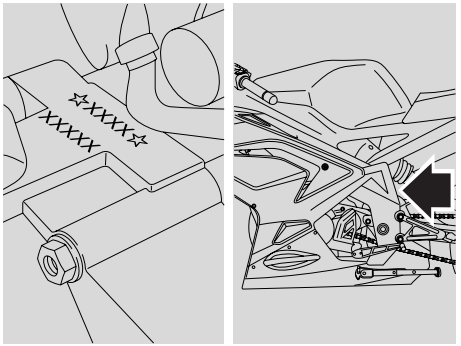
The frame number must be quoted when purchasing spare parts.

NOTE Do not alter the identification numbers if you do not want to incur in severe criminal and administrative sanctions. In particular, the alteration of the frame number results in the immediate invalidity of the warranty.

FRAME NUMBER

The frame number is stamped on the right side of the steering column.

Frame no. _____

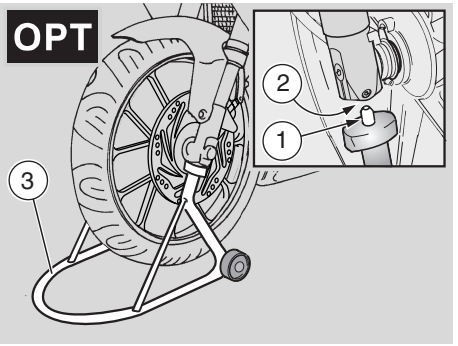


ENGINE NUMBER
(in the countries where required)

The engine number is stamped on the left side of crankcase top, near the chain front sprocket.

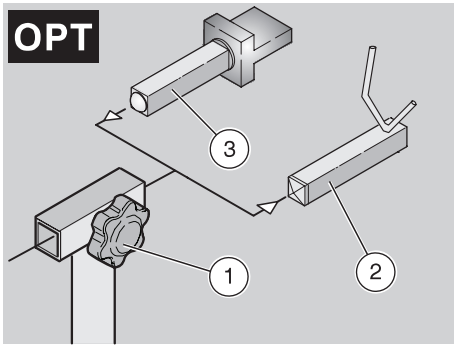
Reach it from the rear side on the left.

Engine no._____



POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND OPT

- Set the vehicle on the relevant rear support stand OPT, see page 48 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND OPT).
- Insert the two ends of the stand (1) in the two holes (2) positioned on the lower ends of the front fork.
- Rest one foot on the front part of the stand (3).
- Push the stand (3) downwards until it reaches the end of its travel (see figure).

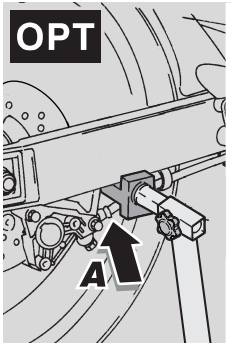


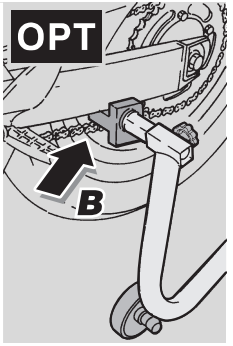
POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND OPT

- Loosen the knob (1).
- Withdraw the fork support (2) and extract it from the stand seat.
- Insert the support pin (3).
- Repeat the previous operations on the opposite side of the stand.

⚠ WARNING

Raise the vehicle by means of the two swinging arm sections only.



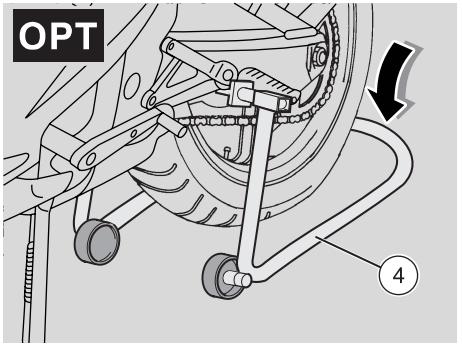


- Insert the stand from the rear side of the vehicle and position it so that the two support pins (3) are fitted properly:

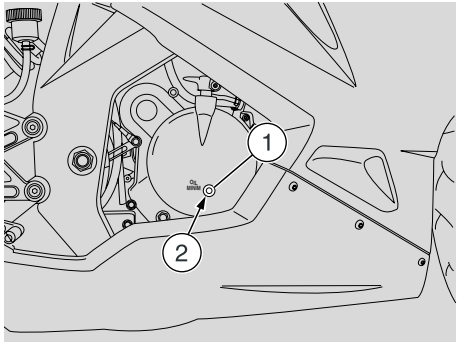
– the right support between brake calliper and brake line connection on swinging arm (**Pos. A**);
– the left support between gearwheel and chain (**Pos. B**).

- Withdraw the support pins (3) and take them fully home on the swinging arm.
- Tighten the two knobs (1).

NOTE Have someone help you keep the vehicle in vertical position with the two wheels on the ground.



- Rest one foot on the rear part of the stand (4).
- Push the stand (4) downwards until it reaches the end of its travel (see figure).



CHECKING THE GEARBOX FLUID AND TOPPING UP

Carefully read page 43 (MAINTENANCE) and page 27 (GEARBOX FLUID).

Check gearbox fluid according to SCHEDULED MAINTENANCE CHART, see page 44.

CHECK

NOTE Position the vehicle on firm and flat ground.

- Stop the engine and let it cool down for at least ten minutes in order to allow the oil inside the crankcase to be drained and cooled.
- Remove right side fairing, see page 53 (REMOVING SIDE FAIRINGS).
- Unscrew and remove the screw (1).

⚠ WARNING

Risk of falling and overturning.
When the vehicle is straightened from the parking position to the driving position, the stand goes automatically up.

- Keep the vehicle in vertical position, with the wheels resting on the ground.

NOTE If the previous operations are not carried out, the oil level could be misread.

- From the right side, unscrew and remove the screw (1).
- Visually check that the oil has reached the lower edge of the threaded hole (2).

If it reaches it:

- Screw and tighten the screw (1).

If it does not reach it:

- proceed with topping up.

TOPPING UP

If topping up is needed, proceed as follows:

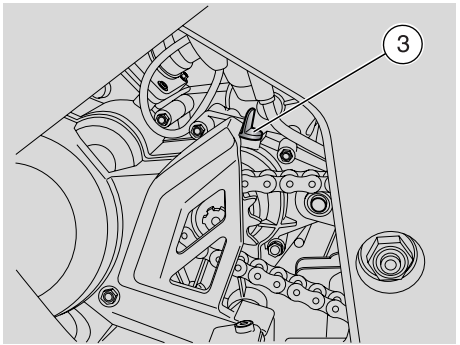
- Working on the left side, remove the fairing see page 53 (REMOVING SIDE FAIRINGS)
- Working on the right side, unscrew and remove filler plug (4).
- Pour a small quantity of oil and wait for about one minute in order to let the oil flow inside the crankcase.
- Visually check from the right side that oil has reached the lower edge of the threaded hole (2).
- If this is not the case, repeat topping up with small amounts of oil and check again on the threaded hole (2) that the set level has been reached.
- Once the operation is over, screw and tighten filler plug (3) working on the right side.

⚠ WARNING

Tighten filler plug properly and make sure that oil is not seeping out.

Periodically check for leaks at the casing cover gasket.

Do not use the vehicle with insufficient lubrication or with contaminated or unsuitable lubricants, since this would cause early wear of the moving parts and may also cause irreparable failures.



CHANGING GEARBOX FLUID

Carefully read page 43 (MAINTENANCE) and page 27 (GEARBOX FLUID).

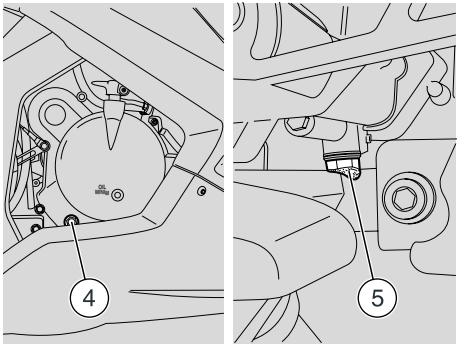
Check gearbox fluid according to SCHEDULED MAINTENANCE CHART, see page 44.

REPLACEMENT

- Start the engine, see page 36 (STARTING) and let it run at idle speed for some minutes in order to improve oil flow in the following draining operations.

NOTE Position the vehicle on firm and flat ground.

- Stop the engine.



⚠ WARNING

Oil becomes very hot when engine is warmed up; beware of scalds during the procedure described below.

- Remove left side fairing see page 53 (REMOVING SIDE FAIRINGS).

⚠ WARNING

Risk of falling and overturning.
When the vehicle is straightened from the parking position to the driving position, the stand goes automatically up.

- Keep the vehicle in vertical position, with the two wheels resting on the ground.
- Working on the left side, place a container of suitable capacity under the drain plugs (5), (4).
- Unscrew and remove the drain plug (5) from crankcase.
- Unscrew and remove the drain plug (4) from casing cover.
- Unscrew and remove the filler plug (3).
- Drain the oil and let it drip into the container (1) for a few minutes.
- Remove any metal debris collected by the drain plug (5) magnet.
- Screw and tighten the drain plugs (4) and (5).
- Pour through the filler (3) the necessary quantity,see page 68 (TECHNICAL DATA), of gearbox fluid, see page 71 (LUBRICANT CHART).
- Screw the filler plug (3).
- Start the engine, see page 36 (STARTING) and let it idle for about one minute to enable the gearbox fluid circuit to be filled.

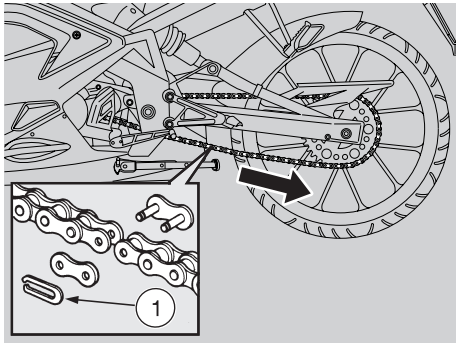
Check oil level and top up accordingly, see page 49 (CHECKING THE GEARBOX FLUID AND TOPPING UP).

⚠ WARNING

Tighten filler and drain plugs properly and make sure that oil is not seeping out.

Periodically check for leaks at the casing cover gasket.

Do not use the vehicle with insufficient lubrication or with contaminated or unsuitable lubricants, since this would cause early wear of the moving parts and may also cause irreparable failures.



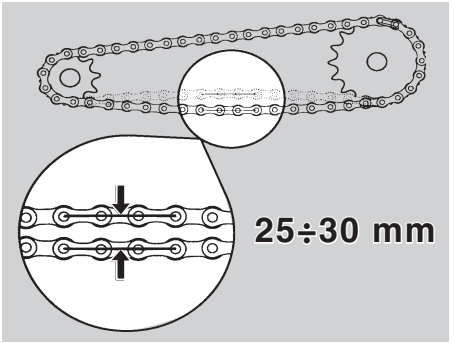
DRIVE CHAIN

Carefully read page 43 (MAINTENANCE).

The vehicle is equipped with a master link chain.

⚠ WARNING

An excessive slackening of the chain may let it get out of the rear sprocket resulting in an accident or severe damages to the vehicle.
Periodically check the slack and if necessary have it adjusted by an aprilia Authorised Dealer.
To change the chain, contact an aprilia Authorised Dealer, who will ensure you prompt and accurate servicing.



⚠ CAUTION

Incorrect maintenance may cause the early wear of the chain and/or damages to the front sprocket and/or the rear sprocket.
Carry out the maintenance operations more frequently if you use the vehicle in difficult conditions or on dusty and/or muddy roads.

CHECKING THE SLACK

To check the slack, proceed as follows:

- Stop the engine.
- Place the vehicle on the stand.
- Position the gear change lever in neutral.
- Make sure that the vertical oscillation, in an intermediate point between front sprocket and rear sprocket in the lower part of the chain, is included between **25–30 mm**.
- Move the vehicle forward, in such a way as to check the vertical oscillation of the chain even in other positions; the slack must be constant in all the wheel rotation phases.

⚠ CAUTION

A greater slack in some positions is due to crushed or seized links. In such cases contact an aprilia Authorised Dealer. To prevent the risk of seizures, lubricate chain frequently, see page 52 (CLEANING AND LUBRICATION).

If the slack is the same in all positions, but higher or lower than **25–30 mm**, have it adjusted by an **aprilia** Authorised Dealer.

CHECKING THE DRIVING CHAIN, THE FRONT AND REAR SPROCKET WEAR

Further, check the chain and sprockets and make sure that they do not present:

- Damaged chain rollers.
- Loosen pins.
- Dry, rusty, crushed or seized links.
- Excessive wear.
- Sprocket teeth excessively worn or damaged.

⚠ CAUTION

If the chain rollers are damaged and/or the pins are loose, it is necessary to change the whole chain unit (both sprockets and chain).

⚠ CAUTION

Lubricate the chain frequently, especially if there are dry or rusty parts. The crushed or seized links must be lubricated and made work again.
If this is not possible, contact an aprilia Authorised Dealer, who will provide for changing the chain.

- Finally, check the wear of the swinging arm protection shoe.

CLEANING AND LUBRICATION

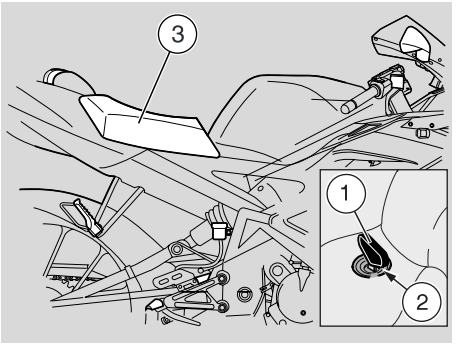
⚠ CAUTION

Carry out the adjustment, lubrication, cleaning and change of the chain with great care.

Lubricate the chain every 5000 km (3106.8 mi) or whenever necessary.

Lubricate the chain with spray grease for chains or with SAE 80W-90 oil.

Never wash the chain with water jets, steam jets, high-pressure water jets and highly inflammable solvents.



REMOVING THE RIDER SEAT

Carefully read page 43 (MAINTENANCE).

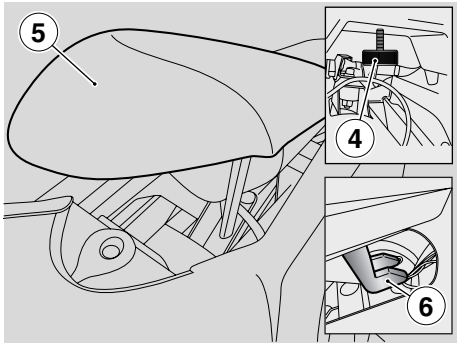
- Place the vehicle on the stand.
- Insert the key (1) in the lock (2).
- Rotate the key (1) clockwise.
- Raise and remove the seat (3).

Upon reassembly:

- Insert the rear seat pegs (4) under the tail guard.
- Lower the seat.
- Turn the key (1) anticlockwise and lock the seat in place.

⚠ WARNING

Before riding, make sure that the seat (3) is properly positioned and secured firmly.



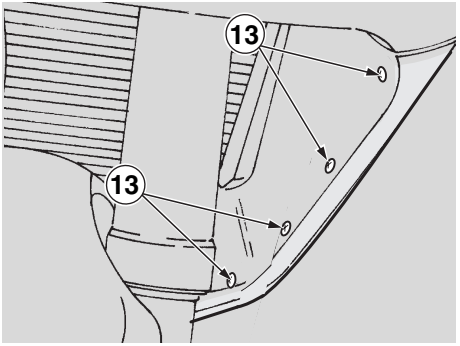
REMOVING THE PASSENGER SEAT

Carefully read page 43 (MAINTENANCE).

- Remove rider seat, see page 52 (REMOVING THE RIDER SEAT)
- Loosen and remove the knob (4) and collect collar and washer.
- Lift the passenger seat (5) and remove it from the couplings (6).

⚠ WARNING

Before riding, make sure that the seat (5) is properly positioned and secured firmly.



REMOVING SIDE FAIRINGS

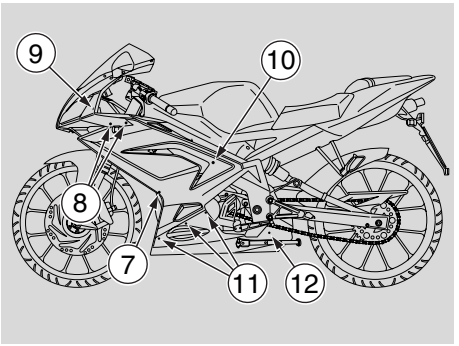
Carefully read page 43 (MAINTENANCE).

- The described procedures apply to both side fairings.

⚠ WARNING

Before carrying out the following operations, let the engine and the silencer cool down to ambient temperature, in order to avoid burns.

- Place the vehicle on the stand.
- Unscrew and remove the two screws (8).
- Unscrew and remove the screw (9).
- Loosen and remove centre screw (10) and the collar.
- Unscrew and remove the centre screw (7).
- Unscrew and remove the three lower screws (11).
- Unscrew and remove the four screws (13).
- Remove front guard.



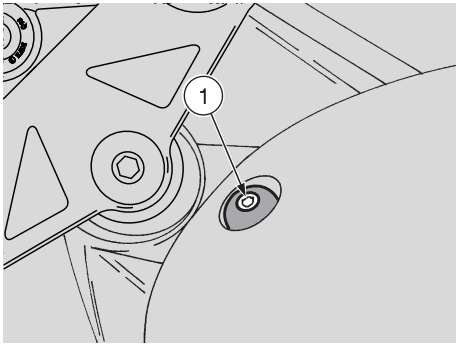
⚠ CAUTION

Handle the plastic and painted components with care to avoid scraping or damaging them.
DO NOT PULL ON THE WIRES.

- Disconnect both electrical terminals from turn indicator.
- Remove side fairing.

REMOVING THE LOWER COWLING

- Working on both sides, release and remove the three screws (11).
- Unscrew and remove the screw (12).
- Remove lower cowling.



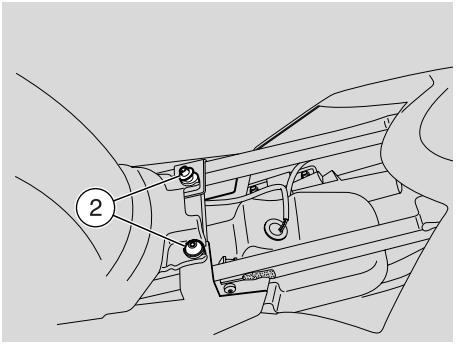
MOVING FUEL TANK AWAY

Carefully read page 43 (MAINTENANCE) and page 27 (FUEL).

⚠ WARNING

Risk of fire.
Allow some time for the engine and muffler to cool down completely. Fuel vapours are harmful to human health.
Ensure the area is well ventilated before proceeding.
Do not inhale fuel vapours.
Do not smoke, nor use naked flames.

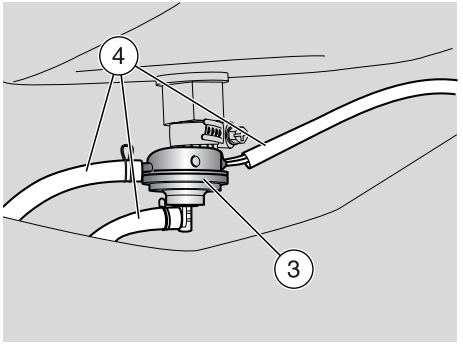
DO NOT RELEASE FUEL INTO THE ENVIRONMENT.



- Remove the rider seat, see page 52 (REMOVING THE RIDER SEAT).
- Unscrew and remove the screw (1) and collect the washer.
- Unscrew and remove the two screws (2) and collect both collars.
- Lift the tank, move it backwards and rest it on seat compartment.

⚠ CAUTION

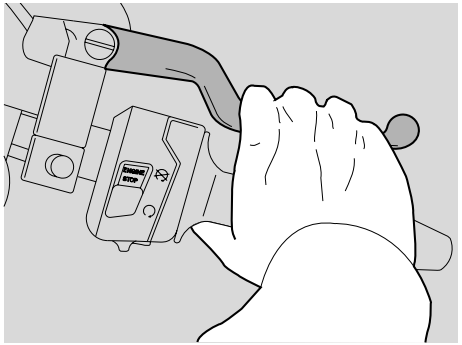
Handle with care.
When lifting the fuel tank DO NOT pull on the fuel pipe (4).



⚠ CAUTION

Pay special attention to the fuel tap (3).
Do not squash the pipes (4).
Danger: fuel could leak out.

- Refit following the instructions previously described in this section in reversed order.

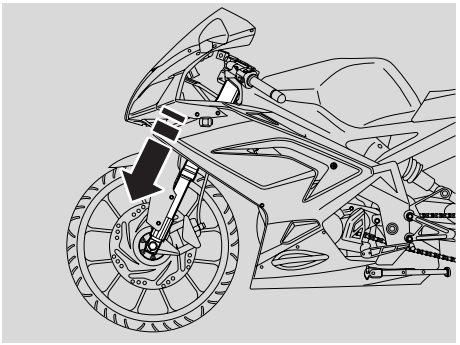


INSPECTING THE FRONT AND REAR SUSPENSIONS

⚠ CAUTION

To change front fork fluid, contact an aprilia Authorised Dealer, who will ensure you prompt and accurate servicing.

Carefully read page 43 (MAINTENANCE).



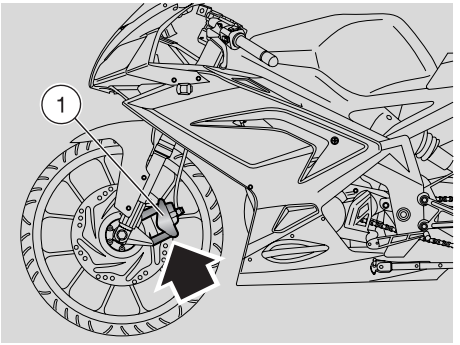
Have the front fork fluid changed according to SCHEDULED MAINTENANCE CHART, see page 44.

Every 5000 km (3106.8 mi) perform the following checks:

- With pulled front brake lever, press the handlebar repeatedly, thrusting the fork downwards.
  The fork should compress in a smooth movement and must show no traces of oil on the legs.
- Ensure that all components are properly tightened and check the front and rear suspension articulated joints for correct operation.

⚠ CAUTION

In the event of faulty operation or if you need assistance contact an aprilia Authorised Dealer.



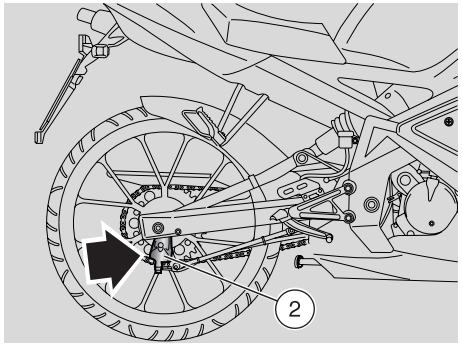
CHECKING THE BRAKE PADS FOR WEAR

Carefully read page 28 (BRAKE FLUID - recommendations), page 28 (DISC BRAKES) and page 43 (MAINTENANCE).

The following instructions apply to both braking systems.

Check brake pads for wear according to SCHEDULED MAINTENANCE CHART, see page 44.
The wear of the disc brake pads depends on the use, on the kind of drive and on the road.

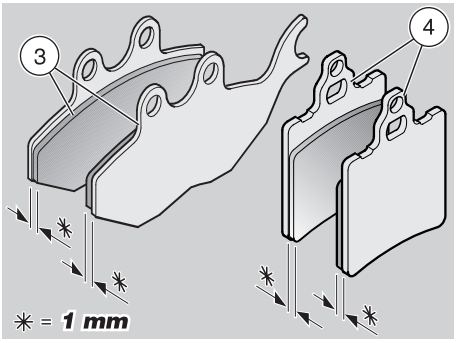
Inspect the brake pads before each ride.



To carry out a rapid checking of the wear of the pads, proceed as follows:

- Place the vehicle on the stand.
- Carry out a visual check between the brake calliper and the pads, proceeding:

– from below, on the front part, for the front brake calliper (1);
– from below at the rear to check the rear brake calliper (2).



⚠ WARNING

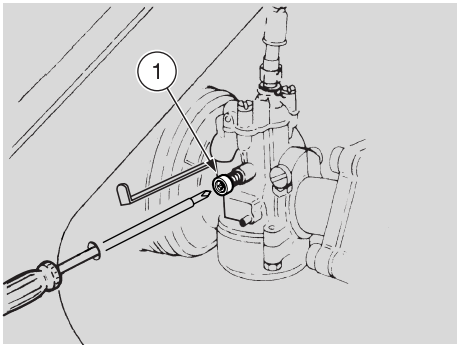
If brake pads were allowed to wear to the metal substrate, metal-to-metal contact with the brake disc would lead to rattle and the brake calliper sparking; this would result in loss of braking and brake disc damage, causing a dangerous riding condition.

- Replace both pads, if friction material thickness (even of a single pad) reduces to about 1 mm.

– Front pad (3).
– Rear pad (4).

⚠ WARNING

Contact an aprilia Authorised Dealer for the replacement.



IDLING ADJUSTMENT

Carefully read page 43 (MAINTENANCE).

Adjust the idling speed every time it is erratic.

To carry out this operation, proceed as follows:

- Ride for a few kilometres / miles until reaching the normal operating temperature, see page 15 (Coolant temperature indicator).
- Select neutral (green warning light "N" on).
- Check the engine idling rpm on the rev counter.

The engine idling speed must be about 1600 ± 100 rpm.

If necessary:

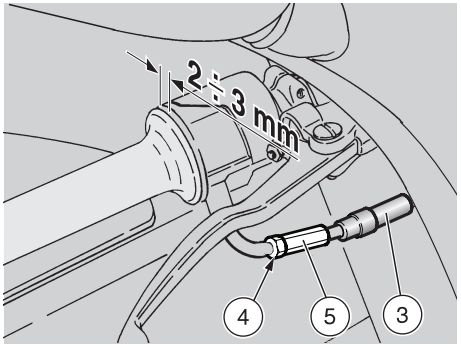
- Place the vehicle on the stand.
- Fit a Phillips screwdriver in the hole and work the adjusting screw (1) on the carburettor.

TURNING IT CLOCKWISE, you increase the engine rpm.

TURNING IT ANTICLOCKWISE, you decrease the engine rpm.

- Twist the throttle grip, accelerating and decelerating a few times to make sure that it operates correctly and to check if the idling speed is constant.

NOTE If necessary, contact an **aprilia** Authorised Dealer.



ADJUSTING THE THROTTLE TWISTGRIP

Carefully read page 43 (MAINTENANCE).

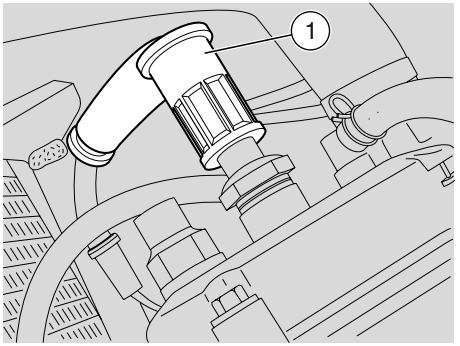
There should be **2 - 3 mm**free play in the throttle twistgrip (measured at twistgrip edge).

If this is not the case, proceed as follows:

- Place the vehicle on the stand.
- Withdraw the protection (3).
- Slacken the lock nut (4).
- Rotate the adjuster (5) until achieving the specified free play.
- When finished, tighten the lock nut (4) and check free play again.
- Refit the protection (3).

⚠ WARNING

When finished, turn the handlebar to make sure its movement does not affect the engine idle rpm and check that the throttle grip - when opened and then released - returns smoothly to the closed position.



SPARK PLUG

Carefully read page 43 (MAINTENANCE).

Clean the spark plug according to SCHEDULED MAINTENANCE CHART, see page 44.

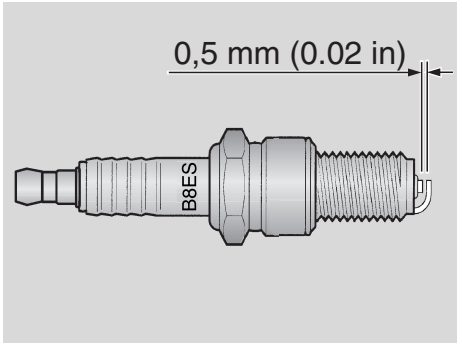
Periodically remove the spark plug and clean it carefully, removing carbon deposits; change it if necessary.

To reach the spark plug:

- Remove left side fairing, see page 53 (REMOVING SIDE FAIRINGS).

To remove and clean the spark plug:

- Pull the cap off the spark plug (1).
- Remove all the dirt from the base of the spark plug, then unscrew it with the spanner you will find in the tool kit and extract it from its seat, taking care that neither dust nor other substances enter the cylinder.
- Make sure that there are neither carbon deposits, nor corrosion marks on the electrode and on the central part; if necessary, clean them with the special



cleaners for spark plugs, with an iron wire and/or a metal brush.

- Energetically blow some air, in order to prevent the removed residues from getting into the engine.
  Change the spark plug if it shows cracks on the insulating material, corroded electrodes or excessive deposits.
- Check the electrode gap with a feeler gauge.
  The gap must be **0.5** mm; if necessary, adjust it, carefully bending the earth electrode.
- Make sure that the washer is in good condition. Fit the washer and screw the spark plug finger-tight to avoid damaging the thread.
- Tighten using the spanner supplied with the tool kit. Screw in each spark plug by half a turn to compress the washer.

Spark plug tightening torque:
20 Nm (2 kgm).

⚠ CAUTION

The spark plug must be tightened firmly, otherwise the engine may overheat and severe damage may occur.
Use recommended spark plugs only, see page 68 (TECHNICAL DATA). A spark plug of the wrong rating may shorten engine life and cause loss of performance.

- Position the spark plug cap properly, to prevent it from coming off due to engine vibration.
- Reposition fuel tank.

BATTERY

Carefully read page 43 (MAINTENANCE).

The vehicle is equipped with a maintenance-free battery.

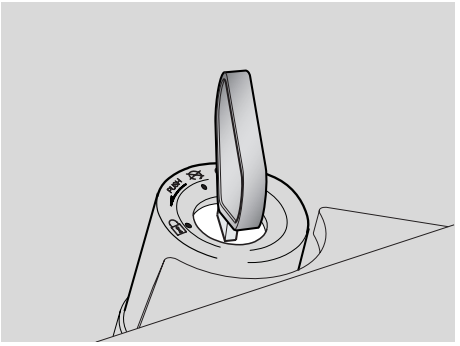
⚠ WARNING

The battery gives off explosive gases and must be kept away from flames and sources of ignition or heat; do not smoke near the battery.

During the recharging or the use, make sure that the room is properly ventilated and avoid inhaling the gases released during the recharging.

KEEP AWAY FROM CHILDREN.

Avoid leaning the vehicle at steep angles or you might spill battery fluid.



⚠ CAUTION

Never invert the battery cables.
Connect and disconnect battery with ignition switch positioned on "⊠".
Connect the positive cable (+) first and then the negative cable (-).
Disconnect following the reverse order.

LONG INACTIVITY OF THE BATTERY

If the vehicle remains unused for more than fifteen days, it is necessary to recharge the battery, in order to prevent sulphation, see page 59 (CHARGING THE BATTERY)

- Remove the battery, see page 59 (REMOVING THE BATTERY) and store it in a cool, dry place.

It is important to check the charge periodically (about once a month), during the winter or when the vehicle remains unused, in order to prevent the deterioration of the battery.

◆ Recharge the battery fully at a normal charge rate, see page 59 (CHARGING THE BATTERY)

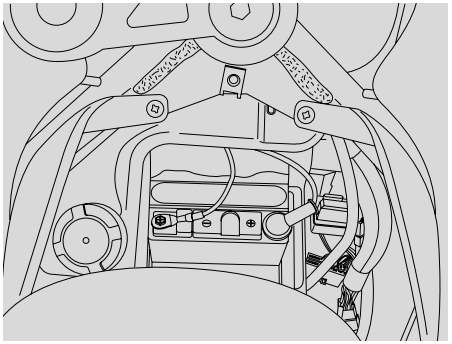
If the battery remains on the vehicle, disconnect the cables from the terminals.

CHECKING AND CLEANING THE TERMINALS

Carefully read page 58 (BATTERY).

◆ Lift the fuel tank see page 54 (MOVING FUEL TANK AWAY).
◆ Make sure that the cable terminals and the battery terminals are:
– in good condition (and not corroded or scaled);
– covered with neutral grease or Vaseline.

If necessary:
◆ Make sure that the ignition switch is in position "⚿".
◆ Disconnect first the negative (-) and then the positive cable (+).
◆ Brush with a wire brush to eliminate any sign of corrosion.
◆ Connect first the positive (+) and then the negative cable (-).
◆ Coat the terminals of cables and battery with neutral grease or Vaseline.



REMOVING THE BATTERY

Carefully read page 58 (BATTERY).

◆ Make sure that the ignition switch is in position "⚿".
◆ Lift the fuel tank see page 54 (MOVING FUEL TANK AWAY).
◆ Disconnect first the negative (-) and then the positive cable (**+**).
◆ Remove the battery, and put it on a flat surface in a cool, dry place.

⚠ WARNING

Once removed, the battery must be stored in a safe place and kept away from children.

CHARGING THE BATTERY

Carefully read page 58 (BATTERY).

◆ Remove the battery, see page 59 (REMOVING THE BATTERY).
◆ Connect the battery to a battery charger.
◆ A recharge with an amperage equal to 1/10th of the battery capacity is recommended.

⚠ CAUTION

When you disconnect the battery charger, allow 5-10 minutes before refitting the battery, as it will keep producing gas for a few minutes.

INSTALLING THE BATTERY

Carefully read page 58 (BATTERY).

◆ Make sure that the ignition switch is in position "⚿".
◆ Refit the battery into its mount.

⚠ CAUTION

Always connect the battery breather pipe, to prevent the sulphuric acid vapours from corroding the electric system, painted parts, rubber elements or gaskets when they exit the breather pipe itself.

◆ Connect first the positive (+) and then the negative cable (-).
◆ Coat the terminals of cables and battery with neutral grease or Vaseline.
◆ Reposition fuel tank see page 54 (MOVING FUEL TANK AWAY).

CHANGING A FUSE

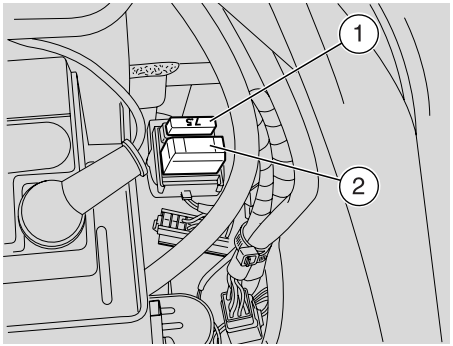
Carefully read page 43 (MAINTENANCE).

⚠ CAUTION

Do not repair faulty fuses.
Never use a fuse of a rating other than specified.
This could damage the electric system or cause a short circuit, with the risk of fire.

NOTE When a fuse fitted in a particular position keeps blowing frequently, there might be a short circuit or overloading. In this case, contact an **aprilia** Authorised Dealer.

Checking the fuse (1) is recommended whenever an electric component fails to operate or is malfunctioning, or when the engine does not start.



Check as follows:

- Set the ignition switch to "⚿" to avoid any short-circuit.
- Move fuel tank away, see page 54 (MOVING FUEL TANK AWAY).
- Extract and check the fuse (1) - a broken filament means that the fuse is blown.
- Before replacing a fuse, identify the cause of the failure, if possible.
- Then replace the damaged fuse with the supplied spare fuse (2) or with one of the same amperage.

NOTE When you use the spare fuse (2), remember to add a new spare fuse into the proper seat.

ARRANGEMENT OF THE FUSE

7.5 A fuse from battery to:
all electric loads excluded light circuit which is powered by alternating current.

CLEANING MUFFLER AND EXHAUST SILENCER

Carefully read page 43 (MAINTENANCE).

Have muffler and silencer tailpipe cleaned according to SCHEDULED MAINTENANCE CHART, see page 44.

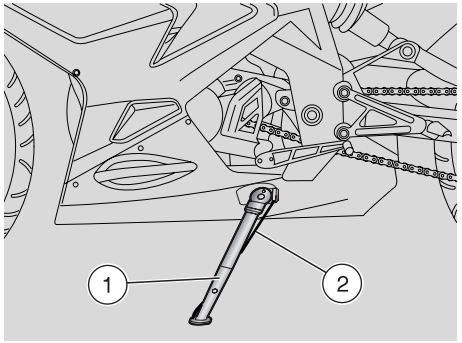
We recommend to contact an aprilia Authorised Dealer for this maintenance operation.

⚠ CAUTION

Check muffler regularly for noise: a too noisy muffler could be damaged.
Contact an aprilia Authorised Dealer for any check and possible repairs.

⚠ CAUTION

Using the vehicle without muffler and/or exhaust silencer is forbidden by current regulations.
Even replacing a.m. items with non-homologated ones is strictly forbidden.



CHECKING SIDE STAND

Carefully read page 61 (CHECKING THE SWITCHES) and page 43 (MAINTENANCE).

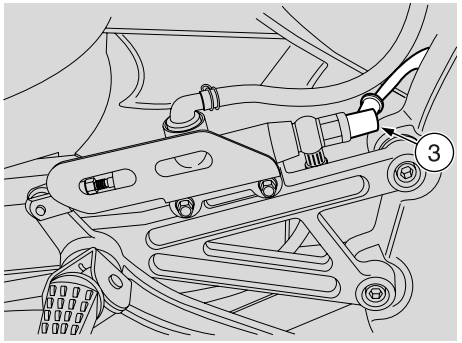
⚠ WARNING

Risk of falling and overturning.
When the vehicle is straightened from the parking position to the driving position, the stand goes automatically up.

It is important that no components interfere with side stand (1) rotation.

Check for the following:

- The springs (2) must not be damaged, worn, rusty or weakened.
- The side stand must rotate freely, if necessary grease the joint, see page 71 (LUBRICANT CHART)

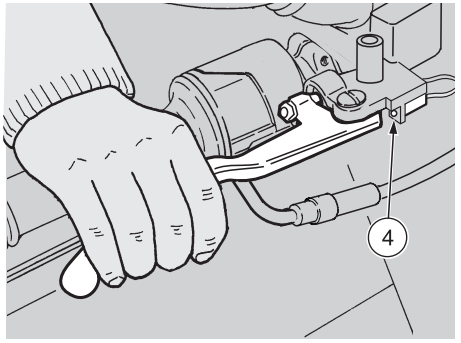


CHECKING THE SWITCHES

Carefully read page 43 (MAINTENANCE).

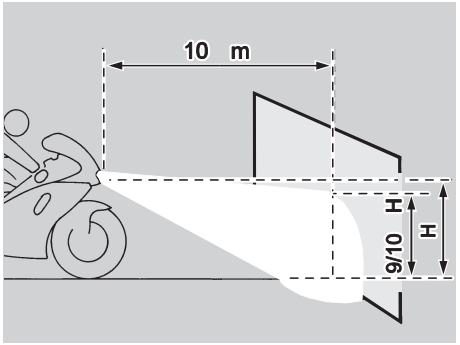
The vehicle is fitted with two switches:

– stoplight switch on the rear brake control lever (3).



– stoplight switch on the front brake control lever (4).

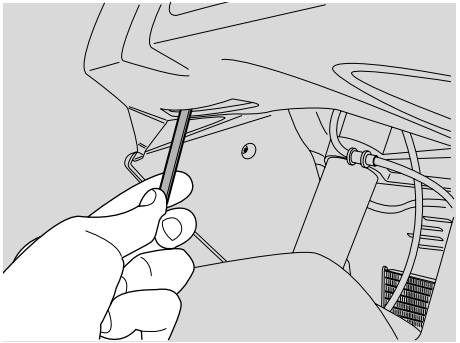
- Make sure that there are no dirt or mud deposits on the switch; the pin must be able to move without interference, returning automatically to its initial position.
- Make sure that the cables are connected correctly.



VERTICAL ADJUSTMENT OF THE HEADLIGHT BEAM

To rapidly check the correct direction of the beam, place the vehicle on flat ground, ten meters away from a wall.

Turn on the low beam, sit on the vehicle and make sure that the beam projected on the wall is slightly under the horizontal line of the headlight (about 9/10th of the total height).

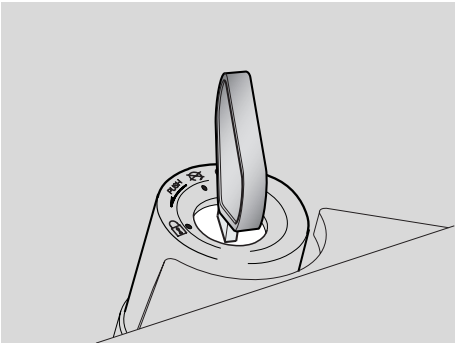


To adjust the headlight beam:

- Work under the headlight using an 8-mm wrench to turn the adjusting screw.

By TURNING IT CLOCKWISE, you set the beam downwards.

By TURNING IT ANTICLOCKWISE, you set the beam upwards.



BULBS

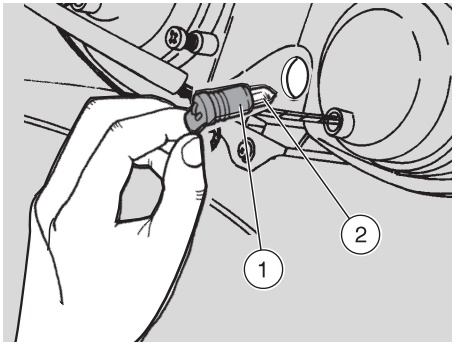
Carefully read page 43 (MAINTENANCE).

⚠ CAUTION

Position ignition switch in "⚿" before replacing the bulb.
Wear clean gloves or use a clean, dry cloth to handle the new bulb.

Do not put your fingerprints on the bulb, as this may lead to overheating and failure.
If you have handled the bulb with bare hands, clean it with alcohol to avoid any damage.

DO NOT PULL ON THE WIRES.



CHANGING THE HEADLIGHT BULBS

Carefully read page 62 (BULBS).

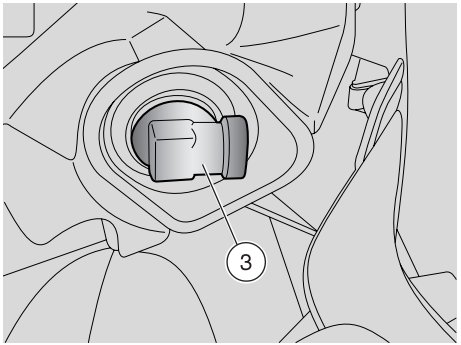
◆ Place the vehicle on the stand.

NOTE Before changing a bulb, check the fuse, see page 60 (CHANGING A FUSE).

The headlight accommodates:

◆ One high beam bulb (1) (right side).
◆ One parking light bulb (2) (lower side) **(in the countries where required).**
◆ One low beam bulb (3) (left side);

High beam and low beam use the same bulbs.
The two bulbs may be interchanged if one of them is damaged or if the spare bulb is missing.
However this shall not prevent the user from changing the damaged bulb, but it is intended only to allow him/her to get home or buy a new one.



To change the bulbs:
PARKING LIGHT BULB
(in the countries where required).

⚠ CAUTION

Do not pull on the wires to remove the bulb holder.

◆ Working from headlight fairing rear side, hold and pull the bulb holder (1) to extract it from its seat.
◆ Remove the parking light bulb (2) and fit a new bulb of equal rating.

HIGH BEAM BULB

NOTE Extract the bulb holder one by one to avoid a wrong positioning during reassembling.

Verify the right positioning if you need to remove all bulb holders simultaneously.

◆ Remove connector working from right rear side of headlight fairing.
◆ Rotate the bulb holder (3) anticlockwise and extract it.
◆ Extract the bulb from its seat.

NOTE Insert the bulb in the bulb holder, making the relevant positioning pegs coincide.

◆ Fit a new bulb of equal rating.

LOW BEAM BULB

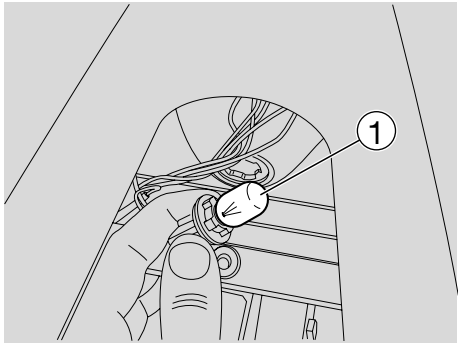
NOTE Extract the bulb holder one by one to avoid a wrong positioning during reassembling.

Verify the right positioning if you need to remove all bulb holders simultaneously.

◆ Remove connector working from left rear side of headlight fairing.
◆ Rotate the bulb holder anticlockwise and extract it.
◆ Extract the bulb from its seat.

NOTE Insert the bulb into the bulb holder, making sure to match the locating seats.

◆ Fit a new bulb of equal rating.



REPLACING THE FRONT AND REAR TURN INDICATOR BULBS

The motorbike is equipped with micro-bulb turn indicators and it is therefore recommended to have them replaced by an **aprilia** Authorised Dealer.

CHANGING THE TAIL LIGHT BULB

Carefully read page 62 (BULBS).

NOTE Before replacing the bulb, check the fuse, see page 60 (CHANGING A FUSE) and the STOP light switches page 61 (CHECKING THE SWITCHES)

- Place the vehicle on the stand.
- Remove rider seat, see page 52 (REMOVING THE RIDER SEAT)
- Remove passenger seat, see page 53 (REMOVING THE PASSENGER SEAT)
- Turn the bulb (1) anticlockwise by 1/4th of a turn and extract it from its seat working from the rear side.

NOTE When reassembling, insert the bulb in the bulb holder, making the two bulb pegs coincide with the relevant guides on the socket.

- Fit a new bulb of equal rating.

⚠ WARNING

Before transporting the vehicle, it is necessary to empty the fuel tank and the carburettor completely, making sure that both are completely dry.

During transport, the vehicle must be kept in vertical position, it must be firmly anchored and the 1st gear must be engaged, in order to avoid any leak of fuel, oil, coolant.

⚠ WARNING

In case of failure, do not tow the vehicle, but ask for roadside assistance and operator will drain any flammable fluids.

DRAINING THE FUEL TANK

Carefully read page 27 (FUEL).

⚠ WARNING

Risk of fire.
Allow some time for the engine and muffler to cool down completely.
Fuel vapours are harmful to human health.
Ensure the area is well ventilated before proceeding.
Do not inhale fuel vapours.
Do not smoke, nor use naked flames.

DO NOT RELEASE FUEL INTO THE ENVIRONMENT.

- Place the vehicle on the stand.
- Stop the engine and wait until it has cooled down.
- Prepare a container large enough to hold the fuel in the tank and place it on the floor on the left side of the vehicle.
- Remove the fuel filler plug.
- Drain fuel using a manual pump or similar system.

⚠ WARNING

After draining the tank, tighten the filler plug.

To drain the carburettor completely, proceed as follows:

- Start the vehicle, see page 36 (STARTING).
- Twist the throttle grip accelerating a few times until the engine stalls because it ran out of fuel.

If necessary, contact an aprilia Authorised Dealer.

Clean the vehicle frequently if it is used in particular areas or conditions, such as:

- Pollution (urban and industrial areas)
- High salinity and humidity (sea areas, hot and damp climates).
- Seasonal/environmental conditions (salt and chemicals spread on the roads in the wintertime).
- Make sure to clean off any industrial residue and pollutants, tar, dead insects, bird droppings, etc. from the body panels and fairings.
- Avoid parking the vehicle under trees. Resins, fruits or leaves falling from the trees may contain aggressive chemical substances that may damage the paintwork.

⚠ WARNING

After the vehicle has been washed, braking efficiency could be temporarily impaired because the friction surfaces of the braking systems may still be wet. Ride carefully as braking distance will be longer. Operate the brakes repeatedly to restore normal operation.

Perform the recommended pre-ride checks, see page 35 (PRELIMINARY CHECKING OPERATIONS)

To remove dirt and mud from painted surfaces, use a low-pressure water jet on dirty areas, remove mud and dirt with a soft car body sponge soaked with abundant water and shampoo (2 - 4% parts of shampoo).
Then rinse with plenty of water and dry with chamois leather.

Clean the outer parts of the engine using a degreaser, small brushes and cloth.

⚠ CAUTION

Wash the vehicle thoroughly before applying silicone wax.

Do not use polishing paste on matt paints.

Do not wash the vehicle under the sun, especially in the summertime, when the body is still warm, as the shampoo will dry before you can rinse it away and could damage the paint.

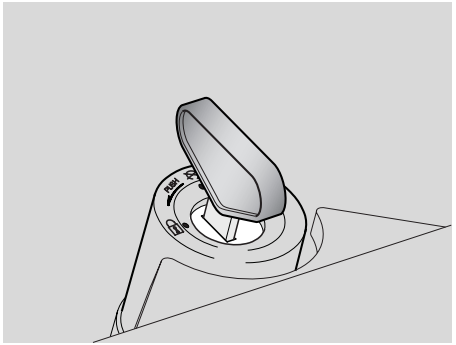
Do not use fluids at a temperature higher than 40°C to clean the plastic components of the vehicle.

Do not aim high-pressure water/air jets or steam jets at the following parts: wheel hubs, controls on the right and left side of the handlebar, bearings, brake master cylinders, instruments and indicators, silencer, glove/tool kit compartment, ignition switch/steering lock.

Do not use alcohol, fuel or solvents to clean the rubber and plastic parts and the seat: use only water and mild soap. Do not use solvents or oil-derived fluids (such as acetone, trichloroethylene, turpentine, fuel, thinners) to clean the seat. You can use detergents with surface-active agents up to 5% (mild soap, degreasing agents) or alcohol. Carefully dry the seat after cleaning.

⚠ WARNING

Do not apply protection waxes to the seat, or it may become slippery.



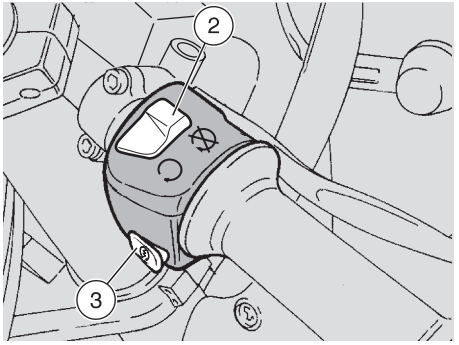
LONG PERIODS OF INACTIVITY

When the vehicle is to remain unused for long periods, some precautions are necessary to avoid damage.

Do not postpone necessary repairs or you could forget them when you take the vehicle out of storage; a general check up is also recommended.

Proceed as follows:

- Remove the spark plug, and pour a teaspoon of two-stroke engine oil (5 - 10 cu. cm) into the cylinder.
- Turn the key and set the ignition switch to position "○".
- Turn the ignition switch to position "○" (2) and press the starter button "Ⓢ" (3) for a few seconds, to distribute the oil evenly on the cylinder surfaces. Refit the spark plug.



- Remove the battery, see page 59 (REMOVING THE BATTERY) and page 58 (LONG INACTIVITY OF THE BATTERY).
- Wash and dry the vehicle, see page 66 (CLEANING).
- Polish painted surfaces with wax.
- Inflate the tyres, see page 33 (TYRES)
- By means of a suitable support, position the vehicle so that both tyres are raised from the ground.
- Store the vehicle in an unheated, dry place, away from sunlight, where temperature is reasonably steady.
- Cover the vehicle avoiding plastic or waterproof covers.

AFTER STORAGE

- Remove the cover and clean the vehicle, see page 66 (CLEANING).
- Check battery charge, see page 59 (CHARGING THE BATTERY) and fit it, see page 59 (INSTALLING THE BATTERY).
- Perform the recommended pre-ride checks, see page 35 (PRELIMINARY CHECKING OPERATIONS)

⚠ WARNING

Test ride the vehicle at moderate speed in an area away from traffic.

TECHNICAL DATA

DIMENSIONS	Max. length	2005 mm
	Max length (with rear mudguard extension OPT)	1985 mm
	Max. width	720 mm
	Max. height (front fairing included)	1200 mm
	Seat height	848 mm
	Wheelbase	1302 mm
	Min. ground clearance	170 mm
	Weight ready for starting	112 kg
ENGINE	Type	aluminium, one-cylinder, 2-stroke with nickel and silicon carbide inner coating.
	Cycle	two-stroke
	Total displacement	49 cu. cm
	Bore / stroke	39.88 mm x 40 mm
	Compression ratio	11.5 : 1
	Starting	electric
	Engine idling rpm	1600 ± 100 rpm
	Clutch	multi plate in oil bath, with hand control on the left side of the handlebar
	Cooling	liquid-cooled
CAPACITIES	Fuel (reserve included)	13 ℓ
	Fuel reserve	2,0 ℓ (mechanical reserve)
	Gearbox fluid	650 cu. cm
	Coolant	1.0 ℓ (50% water + 50% antifreeze with ethylene glycol)
	Mixer oil (reserve included)	1.5 ℓ
	Mixer oil reserve	0.5 ℓ
	Front fork fluid	285 cu. cm (per rod)
	Seats	no. 1 (2 in the countries where passenger is allowed)
	Max carrying load (rider + luggage)	105 kg
	(rider + passenger + luggage)	180 Kg (in the countries where passenger is allowed)

TRANSMISSION	Type	mechanical, 6 gears with foot control on the left side of the engine
	Number of speeds	6
	Selector with fork and drum activated by external selector	
GEAR RATIOS	Ratios	
	1st	11 / 34 = 1: 3,091
	2nd	15 / 30 = 1: 2.000
	3rd	18 / 27 = 1: 1.500
	4th	20 / 24 = 1: 1.200
	5th	22 / 23 = 1: 1.045
	6th	23 / 22 = 1: 0.956
	Final drive type	By chain
	Ratio	14/53
CARBURETTOR	Number	1
	Model	DELL'ORTO PHVA-17.5 with manual cold start device
FUEL SUPPLY	Fuel	Unleaded fuel according to the DIN 51 607 standard, min. O.N. 95 (RON) and 85 (MON)
FRAME	Type	Type Delta Box
	Steering head angle	25.06°
	Trail	95,62 mm
SUSPENSIONS	Front	hydraulically operated telescopic fork
	Wheel travel	112 mm
	Rear	hydraulic monoshock
	Wheel travel	112 mm
BRAKES	Front	disc brake – Ø 300 mm – with hydraulic transmission
	Rear	disc brake - Ø 180 mm - with hydraulic transmission
WHEEL RIMS	Type	in light alloy
	Front	2.75 x 17”
	Rear	3.50 x 17”

TYRES	FRONT	100/80 17”
	- Inflation pressure - solo rider	170 kPa (1.7 bar)
	- Inflation pressure - rider with passenger (*)	180 ± 10 kPa (1.8 ± 0.1 bar)
	REAR	130/70 17”
	- Inflation pressure - solo rider	190 kPa (1.9 bar)
	- Inflation pressure - rider with passenger (*)	210 ± 10 kPa (2.1 ± 0.1 bar)
IGNITION	Type	CDI
	Spark advance	20° ± 1° before TDC
SPARK PLUG	Standard	NGK BR9ES
	As an alternative	Champion RNC3
	Electrodes gap	0.5 mm
ELECTRIC SYSTEM	Battery	12 V - 4 Ah MF
	Fuses	7.5 A
	Generator	12 V - 85 W
BULBS	Low beam	12 V - H8
	High beam	12 V - H8
	Parking light (in the countries where required)	12 V - 5 W
	Turn indicators	Micro-bulbs
	Rear parking lights/number plate light/stoplight	12 V - 5 / 21 W
	Revolution counter lights	12 V - Led
WARNING LIGHTS	Neutral	12 V - 1.7 W
	Turn indicator	12 V - 1.7 W
	High beam	12 V - 1.7 W

(*) (in the countries where passenger is allowed)

LUBRICANT CHART

(Recommended) Gearbox oil: Agip GEAR SYNTH 75W-90.
As an alternative to recommended fluid, top brand oils meeting or exceeding API GL4 and API GL5 specifications can be used.

(Recommended) mixer oil: Agip SPEED 2T.
As an alternative to recommended oils, top brand oils, fully synthetic, meeting or exceeding API TC, JASO FC, ISO L-EGD specifications can be used.

(Recommended) Fork fluid: Agip FORK 7,5W.
As an alternative, it is possible to use Agip FORK 5W or Agip FORK 10W fork fluid to respectively decrease or increase stiffness in fork response.

(Recommended) bearings and other lubrication points: Agip GR MU 3.
As an alternative to recommended grease, use top brand rolling bearing grease that will resist a temperature range of -30°C +140°C, with dripping point 150°C to 230°C, high corrosion protection, good resistance to water and oxidisation.

Battery terminal protection: Neutral grease or Vaseline.

(Recommended) spray grease for chains: Agip CHAIN LUBE SPRAY.

⚠ WARNING

Use new brake fluid only. Do not mix different makes or types of oil without having checked bases compatibility.

⚠ WARNING

Use only antifreeze and anticorrosive without nitrite, ensuring protection at -35°C at least.

(Recommended) Coolant: Agip ANTIFREEZE PLUS.

THE VALUE OF SERVICE aprilia

Thanks to ongoing technical updates and product-specific technical training, **aprilia** Authorised Network engineers are familiar with every detail of this vehicle and have the special equipment required for correct maintenance and repair.

A vehicle kept in sleek running order is a reliable vehicle. Pre-ride checks, proper maintenance at the recommended intervals and using **aprilia** Genuine Parts only are key factors!

To find contact information of the Authorised Dealer and/or Service Centre nearest you, please consult the Yellow Pages or the map provided at our web site :

www.aprilia.com

When you demand **aprilia** Genuine Parts, you are purchasing products that have been developed and tested as early as the vehicle design stage. **aprilia** Genuine Parts systematically undergo strict quality control procedures to ensure total reliability and long service life.

Piaggio & C. S.p.A. wishes to thank its customers for the purchase of this vehicle:

– Do not dispose of oil, fuel, polluting substances and components in the environment.
– Do not keep the engine running if it is not necessary.
– Avoid disturbing noises.
– Respect nature.